

The Pain, Rehabilitation, and Integrative Medicine Advantage™

Incorporating Integrative Medicine in the Curriculum to Improve Outcomes

Narda G. Robinson, DO, DVM, MS, FAAMA

narda@curacore.org



- Texas College of Osteopathic Medicine (DO)
- Colorado State University (DVM, MS)
- Board certified in medical acupuncture (DABMA)
- Fellow, American Academy of Medical Acupuncture (FAAMA)
- Former faculty at Colorado State University-CVMBS
- Director, CSU Center for Comparative & Integrative Pain Medicine
- Author, Canine Medical Massage and Interactive Medical Acupuncture Anatomy
- Founder and CEO, CURACORE VET and CURACORE MED (curacore.org)

Objectives

What's Missing?

• Describe factors that contribute to the prescription opioid epidemic

What's the Value?

 Consider the value of nonpharmacologic strategies in reducing opioid reliance

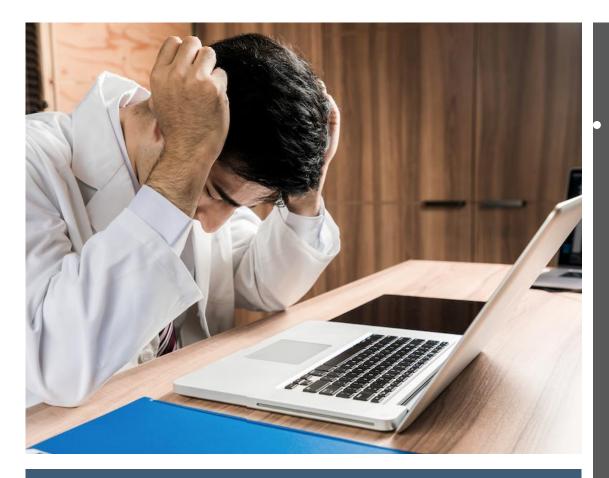
How to Institute Change?

 Illustrate how integrative medicine is introduced into a professional medical or veterinary curriculum with horizontal and vertical integration. • • • • • • • • • • • • • •

Gaps that Contribute to the Prescription Opioid Epidemic



- Lack of instruction in pain medicine
- Lack of awareness of non-opioid options
- Insufficient scrutiny of corporate influence



Why Consider Student Wellness?

Not only are medical students and postgraduate clinicians illequipped to find, characterize, and treat pain, thereby fostering a dependence on old, reflexive, opioid prescribing habits, but they themselves are often depressed, distressed, and suicidal.

Why Are Students Depressed?



- "The medical curriculum may contribute to the high prevalence of psychological ill-health among medical students."
- "Motivation is an important factor to help medical students maintain a healthy balance between study demand and personal wellbeing."
- Adv Med Educ Pract. 2018; 9: 323– 333.

Doctor, Heal Thyself



- "Medical schools ulletcould hold the key to effect change and may be in the best position to enable medical students, educators, and clinicians to work together to build a healthier workplace culture."
- Adv Med Educ Pract. 2018; 9: 323–333.

Help Patients, Prevent Burnout



- "Our results suggest that acupuncture training has the potential to influence burnout among family physicians—particularly by reducing depersonalization."
 - Crawford PF et al.
 Relationship of training in acupuncture to physician burnout. Journal of the American Board of Family Medicine. 2019;32(2):259-263.

What IS Integrative Medicine?

 Practices that traditionally have not been part of conventional medicine but are now being combined with conventional medicine as evidence for safety and effectiveness increase.



Acupuncture \rightarrow Fewer Opioids

- Family physicians who learn acupuncture prescribe fewer opioids
 - Crawford P et al. The association between acupuncture training and opioid prescribing practices. *Pain Medicine*. 2019; 20(5):1056-1058.



EVIDENCE-BASED NONPHARMACOLOGIC STRATEGIES FOR COMPREHENSIVE PAIN CARE: THE CONSORTIUM PAIN TASK FORCE WHITE PAPER

EXPLORE

Volume 14, Issue 3, May–June 2018,

Pages 177-211



More Expensive Tests Are NOT the Solution

 "Despite increased medical expenditures for pain and technological advances such as magnetic resonance imaging, new medications and surgical approaches, the prevalence and impact of chronic pain is worsening rather than improving."

More Education Solely about Opioids Is NOT the Solution

"Many factors have contributed to the current situation. Both patients and medical practitioners labor under the mistaken idea that most pain problems can be fixed by the doctor or surgeon with a drug or procedure. Medical school and graduate courses still emphasize a search for appropriate dosing of opioid medications rather than considering other options."

The Model Needs to Evolve

 "The business model of medicine, the cultural authority of projected and perceived certainty, and the disempowered position of patients in pain has promoted simplistic solutions—albeit wellintentioned—to complex problems."

The Model Needs to Evolve

 "Patients are often regarded as passive participants with little emphasis placed on self-care, on pain prevention, or therapies that engage preventive and self-care strategies, despite demonstrated longitude of benefit." Treat Patients, Not Pain Scores "The pressure to manage pain scores rather than to treat patients themselves has contributed to overprescribing opioids, widespread drug diversion, which is engaging illegal sources for prescription drugs, the resurgence of heroin addiction, increasing disability from pain, and deaths from overdose."





Treat Patients, Not Pain Scores

"Pain practitioners have long noted that pain scores do not deliver accurate information about the status of a patient. Scores vary inexplicably and alone do not inform tailored, comprehensive and effective solutions."

ullet



Change Is Coming

"The national pain strategies are shifting from a model of pain care, well-intentioned but delivered in specialty silos, favoring expensive solutions that have equivocal evidence of benefit, to multimodal evidence-informed options, fitted to a patient's whole experience of pain and therapeutic goals."



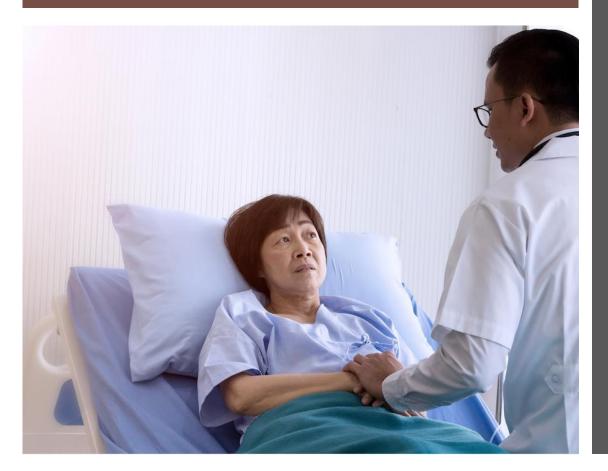
More Are Signing On

"Thirty-seven US \bullet **State Attorneys** General have submitted a letter to America's Health Insurance Plans (AHIP) asking them to include and incentivize evidence-based non-opioid treatments for pain."



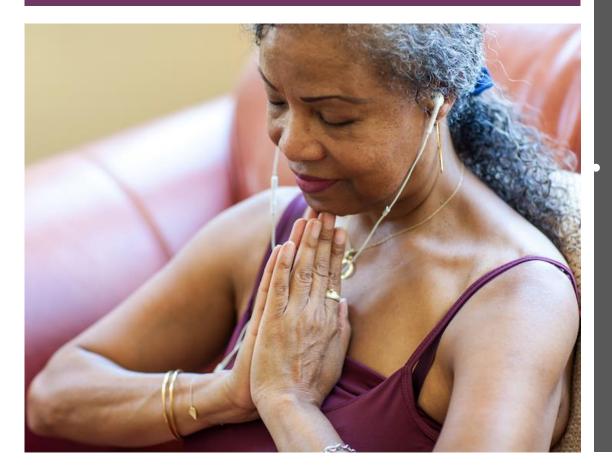
American College of Physicians "Nonpharmacologic therapies for pain are now recommended by the American College of Physicians (ACP) for acute, subacute and chronic... and chronic low back pain."

Hospitals Must Provide Options



"As of January 1, 2018, the largest hospital accreditation organization, the Joint Commission, will require hospitals provide nonpharmacologic modalities for pain."

Encouraging Self-Care



"In contrast to pharmaceuticals and surgery, integrative approaches to pain control involve patient participation and a commitment to self care.

Increased involvement by the patient correlates with improved mood and predicts better outcomes for many chronic conditions, including pain."

Acupuncture for Chronic Pain



- "Acupuncture has accrued extremely strong evidence in the treatment of chronic pain."
 - Systematic reviews
 - Meta-analyses
 - Systematic reviews
 with meta-analyses

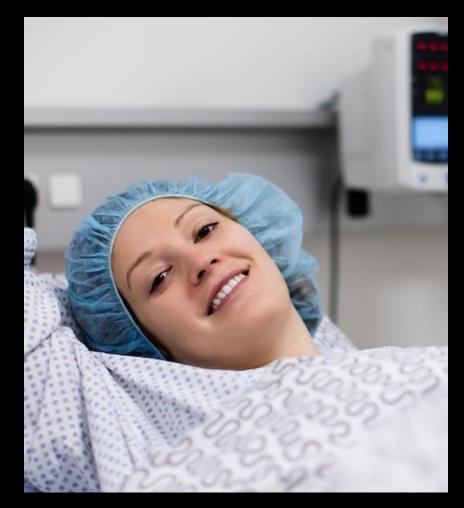
Acupuncture for Chronic Pain

- Osteoarthritis of the knee
- Low back pain, neck pain
- Headache and migraine
- Shoulder / upper body musculoskeletal pain
- Cancer pain
- Peripheral neuropathy due to diabetes, HIV, Bell's palsy and carpal tunnel syndrome



Acupuncture for Post-Operative Pain

• "In multiple systematic reviews with metaanalyses, acupuncture was effective in reducing postsurgical pain compared to sham acupuncture, controls and usual care with reduction in opioid need...with lowered incidence of opioid-related side effects such as nausea, dizziness, sedation, pruritus and urinary retention."



Acupuncture for Post-Operative Pain



- "A systematic review with meta-analysis found acupuncture after total knee arthroplasty reduced pain and was associated with delayed opioid use."
- "In a systematic review and meta-analysis, peri-operative auricular acupuncture reduced postoperative pain and need for analgesic use compared to sham or standard-of-care controls."

Acupuncture for Post-Operative Pain

"Intraoperative electrical stimulation of acupuncture points reduced intraoperative opioid requirements, postoperative pain and duration of stay in the post-anesthesia care unit."

"A systematic review with meta-analysis supports the use of acupuncture as adjuvant therapy in treating post-operative pain and reducing opioid use."



Analgesic Benefits of Massage

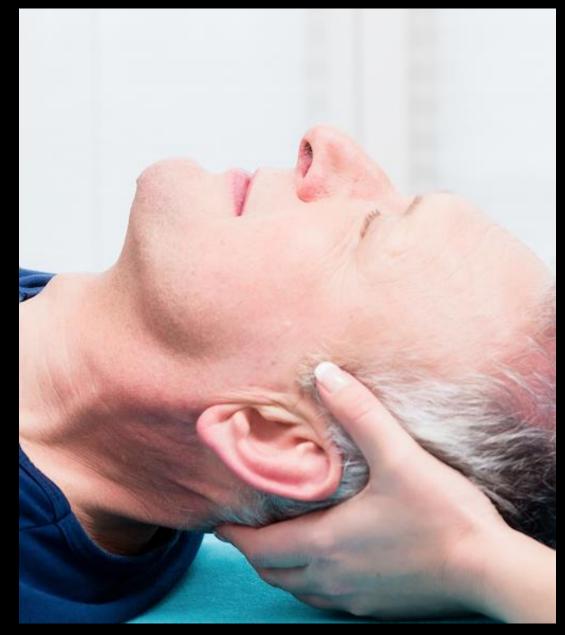


- "Massage therapy involves manipulation of soft tissue structures of the body to prevent or alleviate pain, spasm, tension or stress and to promote health and wellness."
 - Tick H et al. Evidence-based nonpharmacologic strategies for comprehensive pain care: The Consortium Pain Task Force White Paper. *Explore.* 2018; 14(3):177-211.

Evidence on Massage for Pain

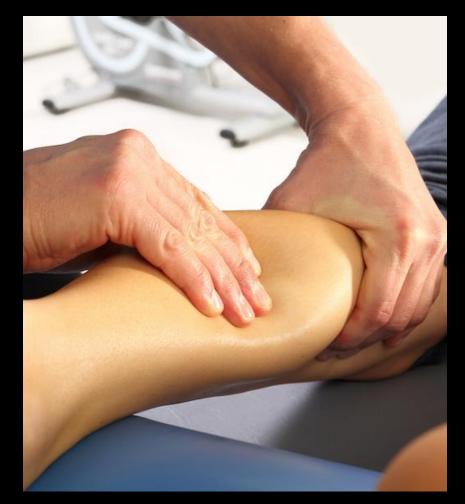
"A systematic review with meta-analysis of 10 trials showed a single dose of massage therapy provided significant improvement in post-operative pain."

Y. Kukimoto et al. The effects of massage therapy on pain and anxiety after surgery: a systematic review and meta-analysis. *Pain Manag Nurs*, 2017; 18(6):378-390.

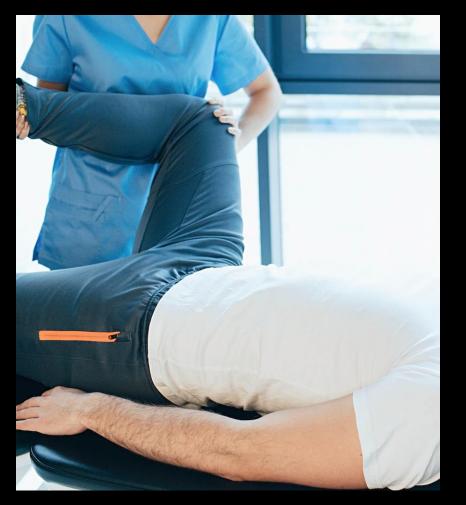


Evidence for Massage & Pain

- "In a systematic review of 16 trials, massage therapy was effective for treating pain and anxiety compared to active comparators in surgical pain populations."
 - Boyd C et al. The impact of massage therapy on function in pain populations – a systematic review and meta-analysis of randomized controlled trials: part III, surgical pain populations. *Pain Med*. 2016;17(9):1757-1772.



Evidence for Massage & Pain

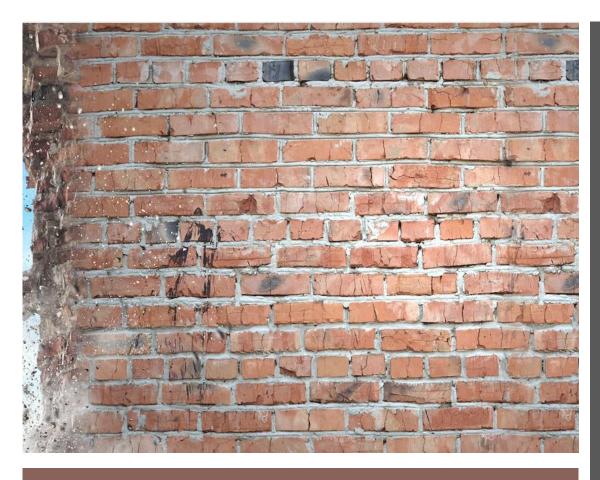


- "In a randomized trial of veterans undergoing major surgery, massage was effective and a safe adjuvant therapy for the relief of acute postoperative pain."
 - Mitchinson AR et al. Acute postoperative pain management using massage as an adjuvant therapy: a randomized trial. *Arch Surg.* 2007;142(12):1158-1167

Evidence for Massage & Pain



 "Massage is effective for pain reduction in post-cesarean section patients, cardiac, and thoracic surgery patients."



Challenges to Instituting Change

- Lack of faculty support
- Insufficient awareness of scientific support
- Habit patterns of practitioners
- Corporate influence over curricula
- Reimbursement



Pain, Rehabilitation, Integrative Medicine Advantage™

The PRIMA Educational Platform

- Science-based
- Evidence-informed
- Horizontally and vertically integrated
- Online with optional onsite laboratories
- 10 foundational components

1. Restore Medicine's Art and Soul

 "Those among us who yearn to be a healing presence for patients and long for the joy of medicine will seize the opportunity and step off the treadmill. Unless physicians take the opportunity to alter the character of their medical practice, this transformation from shift worker to physician-healer will never occur, and the caring, healing touch of the physician's hand will continue to disappear."

2. Ask Questions. Listen.

"Skilled history taking is reported to be declining among medical trainees...Technology appears to have supplanted clinical skills overall and, as more advances take place in the biomedical industry, this dominance is further increasing...It is important for educators to show learners the importance of history taking in solving diagnostic dilemmas and simultaneously to stem the tide of needless investigations to combat the ever-rising healthcare costs."



3. Revive the Lost Art of the Physical Examination

- "Poor physical examination skills are a threat to patient safety as the probability of diagnostic errors and oversights is increased. Moreover, unnecessary investigations themselves are potentially harmful."
- "In an era where there is growing concern of overutilization of health care resources and expense, poor physical examination skills lead to more injudicious referrals and patient mismanagement, leading to added costs."



4. ImplementIntegrativeMedicine asFirst-Line Care



National Center for Complementary and Integrative Health

NIH...Turning Discovery Into Health



Search N

New ACP Clinical Practice Guidelines on Nonpharmacologic Treatment for Low-Back Pain

March 02, 2017



Josephine P. Briggs, M.D. Director National Center for Complementary and Integrative Health

View Dr. Briggs' biographical sketch

Last month, the American College of Physicians (ACP) released new clinical practice guidelines on noninvasive treatments for low-back pain, recommending that clinicians and patients initially select nonpharmacologic treatment as first-line therapy in most cases. It is an important event when the ACP suggests major changes in the treatment of a common clinical problem, and it is especially newsworthy when the problem is something as pervasive and costly as low-back pain and when the guideline includes recommendations to consider interventions as unconventional as tai chi or acupuncture.

Back pain management, as readers of this blog know, is a priority research topic for NCCIH.

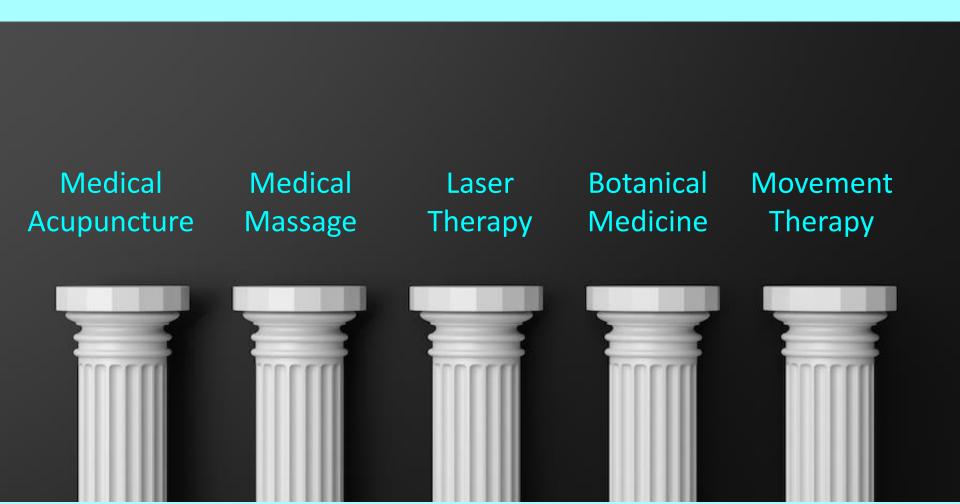


5. Promote Patient-Centered Care

- "The good physician treats the disease;
 The great physician treats the patient who has the disease."
 - Sir William Ösler

5 Pillars of PRIMA Practice

The Pain, Rehabilitation, and Integrative Medicine Advantage



- Medical Acupuncture
 - Neural Regrowth
 - Analgesia
 - Neuromodulation
 - Anti-inflammatory
 - Autonomic regulation
 - Functional restoration
- Medical Massage
 - Sluggish digestion
 - Stress
 - Movement
 - Range of motion
 - Endocannabinoid
 System

- Photomedicine
 - Tissue repair
 - Neuroprotection
 - Anti-inflammation
 - Analgesia
 - Circulatory support
- Botanical Medicine
 - Neuroprotection
 - Anti-inflammation
 - Anti-oxidant
 - Analgesia
- Rehabilitation
 - Reprogramming
 - Stretch & Strengthen

Acupuncture



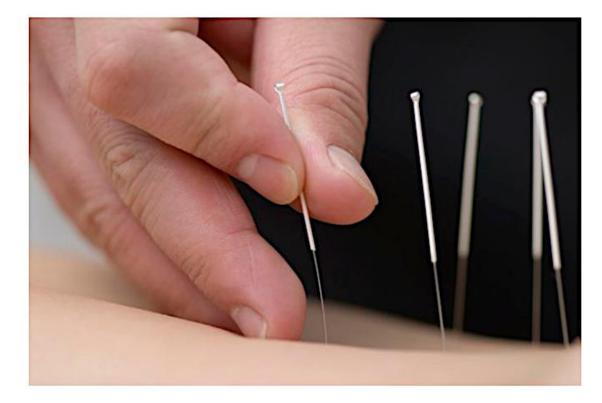
The Harvard Gazette

Research indicates that "real" acupuncture rewires the brain to produce long-term improvement in carpal tunnel syndrome symptoms, while "sham" acupuncture may produce temporary results by tapping into the placebo circuitry in the brain.

Credit: Twitter

HEALTH & MEDICINE

Study shows differences in effects of 'real' and 'sham' acupuncture



Acupuncture improves outcomes in carpal tunnel syndrome in part by remapping the brain



Medical Acupuncture, Vol. 25, No. 1 | Original Articles

Moving Acupuncture to the Frontline of Military Medical Care: A Feasibility Study

Stephen Burns, Alexandra York 🖂, Richard C. Niemtzow, Betty K. Garner, Nancy Steele, and Joan A.G. Walter

Published Online: 26 Feb 2013 | https://doi.org/10.1089/acu.2012.0933





<u>Med Acupunct</u>. 2018 Feb 1; 30(1): 33–38. Published online 2018 Feb 1. doi: <u>10.1089/acu.2017.1260</u> PMCID: PMC5799885 PMID: <u>29410719</u>

Use of Acupuncture in the United States Military Healthcare System

Cathaleen Madsen, PhD, 21, 2 Avni Patel, MPH, 1, 2 Megan Vaughan, RN, 2, 3 and Tracey Koehlmoos, PhD¹

► Author information ► Copyright and License information Disclaimer





Resources for journalists and media outlets

News Releases 🗸 🛛 Me

Media Reso

DECEMBER 31, 2018 / DAILY HEALTH STORIES

Acupuncture Instead of Opioids for Pain

Relief



January 8, 2019 / Wellness

Need Pain Relief? Try Acupuncture Instead of Opioids

New government advisory recommends nonaddictive options first

(f) (y) (in) (p) (z)



Not all pain needs to be treated with prescription medication. That's why a recent advisory recommends opioid-free, non-addictive alternatives, like acupuncture, as



\$ Pay Your Bill O MyChildren's Patient Portal

Careers

OINTERNATIONAL VISITORS Ways to Help

Donate



Overview

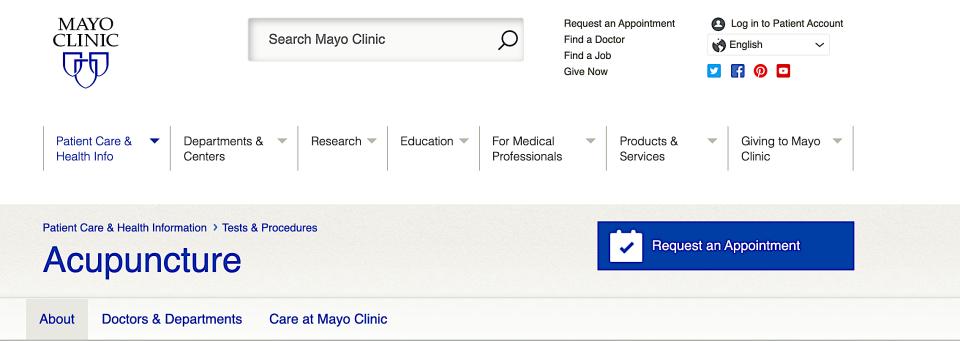
Programs & Services

Related Conditions and Treatments

Acupuncture

What is acupuncture?

Acupuncture refers to the insertion of tiny, hair-thin needles into the skin at strategic points to ease pain and treat many illnesses. Practiced in China for more than 2,000 years, acupuncture is based on the belief that the body contains energy called qi (pronounced "chee") that flows throughout the body on pathways called meridians. When you're healthy, this energy flows freely, but during illness, the energy may be weak or blocked. During acupuncture treatment, the clinician tries to improve the energy flow along the meridians.



Overview

Acupuncture involves the insertion of very thin needles through your skin at strategic points on your body. A key component of traditional Chinese medicine, acupuncture is most commonly used to treat pain. Increasingly, it is being used for overall wellness, including stress management.

Traditional Chinese medicine explains acupuncture as a technique for balancing the flow of energy or life force — known as chi or qi (chee) — believed to flow through pathways (meridians) in your body. By inserting needles into specific points along these meridians, acupuncture practitioners believe that your energy flow will rebalance.



Print

Ear acupuncture



Advertisement

Mayo Clinic does not endorse companies or products. Advertising revenue supports our notfor-profit mission.



A Comprehensive Science-Based Integrative Curriculum



Integrative Curriculum, Year 1 (14 hours)

Acupuncture anatomy, neurophysiology, problem-based learning, experiential laboratory

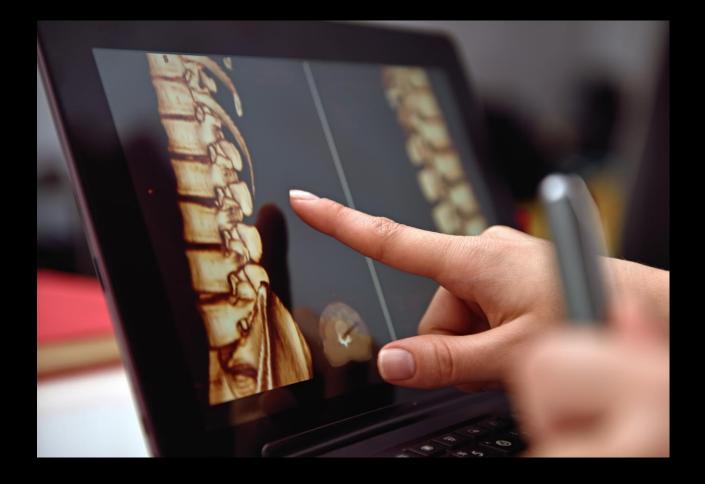
Photomedicine physiology, clinical applications, experiential laboratory



Integrative Curriculum, Year 2 (14 hours)

Medical massage anatomy, physiology, techniques, experiential laboratory

Botanical medicine pharmacology, clinical practice, experiential laboratory



Integrative Curriculum, Year 3 (14 hours)

Integrative medical approaches to orthopedic and neurologic disease and injury

Integrative rehabilitation and physical medicine, experiential laboratory



Integrative Curriculum, Year 4 (150-300 hours)

Hybrid Online / Onsite Medical Acupuncture Comprehensive Program

Results

- Graduates have built a solid foundation in scientific integrative medicine
- They can counsel patients and knowledgeably recommend nonpharmacologic measures of pain control and physiologic restoration
- They can practice techniques that improve their satisfaction with and effectiveness in treating patients in pain and other conditions

Conclusions

 Horrigan B et al. Integrative medicine in America – How integrative medicine is being practiced in clinical centers across the United States. *Global Advances in Health and Medicine.* 2012;1(3):18-94. "The data from the survey reveals that integrative medicine centers embrace a group of core values that inform and radiate through their practice and interactions with their patients. Integrative care is, in practice, patient-centered care and is a fundamentally collaborative enterprise fostering cooperation between patients and practitioners, and among the practitioners themselves."





"The strong affiliations to hospitals, healthcare systems, and medical and nursing schools as well as the centers' collaborative work with and growing referrals from their own health systems reveal that integrative medicine is now an established part of healthcare in the United States." "A growing body of evidence suggests that integrative medicine can successfully address— and to some extent, alleviate—many troubling aspects of our current healthcare crisis by helping to provide effective, safe, and cost-effective treatments as well as preventing future disease and fostering overall wellness."



Questions?



Recommended References

- Evidence-Based Nonpharmacologic Strategies for Comprehensive Pain Care: The Consortium Pain Task Force White Paper.
 - *Explore (NY).* 2018 May Jun;14(3):177-211.
- Integrative medicine in America How integrative medicine is being practices in clinical centers across the United States.
 - Global Advances in Health and Medicine. 2012;1(3):18-94.

