



Knowledge in Motion SCI Education Series

Complementary & Integrative Healthcare (CIH) for People with Spinal Cord Injury



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Craig Hospital



Presentation Objectives

- Learn about the many types of CIH options that are potentially helpful for people with SCI.
- Learn about previous and current clinical trials involving CIH and people with SCI.
- Learn how to critically evaluate the potential usefulness of CIH for your own situations and health needs, and how to approach your medical providers if you're interested in trying CIH.



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What is Complementary and Integrative Healthcare (CIH)?

- Resource: National Center for Complementary and Integrative Health (NCCIH)
 - <https://nccih.nih.gov/>
- CIH includes
 - Complementary medicine
 - +
 - Alternative medicine
 - +
 - Integrative medicine
- Two groups of CIH approaches: Products & Practices



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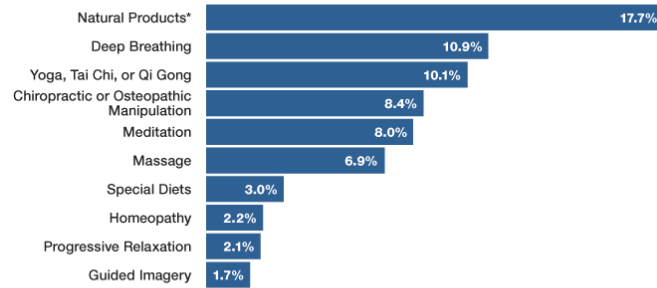
Natural PRODUCTS		PRACTICES	
Cannabis, cannabinoids		Acupressure	Magnetotherapy
Herbs, multi-herbs:	Mineral, multi-minerals:	Acupuncture	Manual Therapy
5-HTP	Calcium	Aromatherapy, Essential oils	Massage
Acai	Chloride	Astrology	Meditation
Bee pollen	Chromium	Auricular therapy	Mind-body therapy
Chondroitin	Copper	Ayurveda	Movement and exercise techniques
Co-enzyme Q10	Fluoride	Binaural beats	Music therapy
Cordyceps	Iodine	Biofeedback	Naturopathy
Cranberry	Iron	Botox	Osteopathic Manipulation
Creatine	Magnesium	Chelation therapy	Prayer therapy, affirmative prayer
Digestive enzymes	Manganese	Chiropractic	Prolotherapy
Echinacea	Potassium	Colon therapy, colonics	Qi Gong
Fish Oil/omega 3/fatty acids	Selenium	Craniosacral therapy	Reiki
Garcinia Cambogia	Zinc	Cupping	Reflexology
Garlic supplements	Probiotics	Diets, special	Relaxation therapy
Ginkgo Biloba		Dry needling	Rolfing
Vitamins, multivitamins:		Ear candling	Shiatsu
Vitamin A		Electromagnetic therapy	Sound therapy
Vitamin B		Energy healing therapy	Tai chi
Vitamin C		Fasting	Transcutaneous electrical nerve stimulation
Vitamin D		Feng shui	Traditional/Folk healing
Vitamin E		Guided imagery, visualization	Ultrasound therapy
Vitamin H		Heat therapy	Yoga
Vitamin K		Heliotherapy	
Folic acid		Homeopathy	
		Hydrotherapy	
		Hypnosis	

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Use of CIH in the US population: Key findings from the 2012 NHIS

10 most common complementary health
approaches among adults—2012



*Dietary supplements other than vitamins and minerals.

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



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Key Findings: Utilization

- 33.2% of U.S. adults used complementary health approaches
- 17.7% of adults used natural products



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Key Findings: Natural Products

- Fish oil was the #1 natural product used among adults
- Increased use:
 - Fish oil
 - Probiotics or prebiotics
 - Melatonin
- Decreased use:
 - Glucosamine/chondroitin
 - Echinacea
 - Garlic supplements



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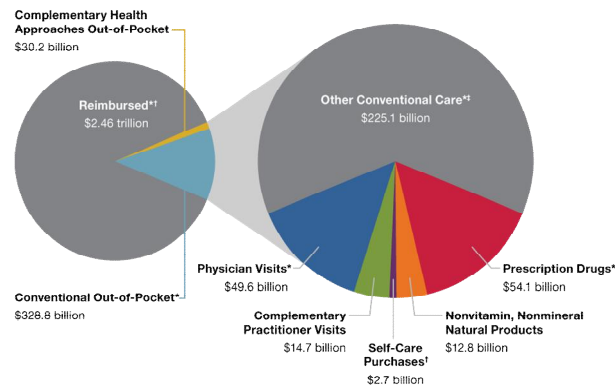
Key Findings: Practices

- Most commonly used:
 - Yoga
 - Chiropractic or Osteopathic manipulation
 - Meditation
 - Massage



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Key Findings: Spending



Nahin RL, Barnes PM, Stussman BJ. Expenditures on complementary health approaches: United States, 2012. National Health Statistics Reports. Hyattsville, MD: National Center for Health Statistics. 2016.



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Key Findings: Reasons for use

- Pain is the most common reason people use CIH
- People who use spinal manipulation more often do so for treatment reasons rather than wellness
- Those who take natural products or who practice yoga were more likely to do so for wellness reasons
- Dietary supplement users were more likely to report general wellness as the reason for taking supplements
- >60% of adults using spinal manipulation reported doing so to treat a specific health condition



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Key Findings: Reasons for use

- >85% of adults who used yoga perceived reduced stress
- 2/3 of yoga users reported being motivated to exercise more regularly
- Yoga users were more likely to report feeling better emotionally than users of dietary supplements or spinal manipulation



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Barriers to use of CIH

- Lack of insurance coverage and prohibitive cost
- Lack of physician support
- Skepticism of efficacy and safety
- Lack of knowledge
- Lack of access to providers
- No reason to use CIH
- Desire for a “magic bullet” cure



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Barriers to use of CIH

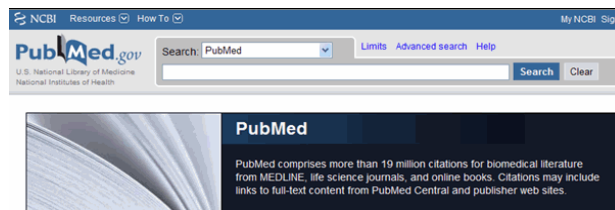
- Stereotype of the typical user
- “Not like me”



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Research on CIH

- Amount of research varies
- Mixed results
- PubMed search
 - Complementary medicine +
 - Alternative medicine +
 - Integrative medicine = >200,000 publications
 - + spinal cord injury = almost 300 publications
- Pain is the most common outcome of interest



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CIH for people with SCI

NSCISC

NATIONAL SPINAL CORD INJURY STATISTICAL CENTER

- Estimated 282,000 persons living with SCI in the US, with approximately 17,000 new SCI occurring every year
- 2006 survey of CIH use in people with physical disabilities
- 2015 survey of CIH use in people with SCI



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CIH for people with SCI

- Pain is the most common reason people with SCI seek CIH
- High prevalence of pain after SCI
- 2006 survey of CIH for pain
- Most commonly tried:
 - Acupuncture
 - Massage
 - Chiropractic
 - Herbs



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Survey on CIH for people with SCI

- SCI Model Systems study on utilization of CIH by people with SCI
- 5 SCI model systems participating
- Study was initiated based on two reasons
- The goal of our project is to provide comprehensive information regarding CIH utilization and barriers to use for people with SCI
- Our ultimate goal is to expand our knowledge in this newly evolving field to contribute to further improving the health and quality of life in people with SCI.



Research on CIH for people with SCI

- Systematic review of CIH approaches for people with SCI



- Disclaimer



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Research on CIH for people with SCI

- PRODUCTS

- Herbs
- Nutritional supplements
- Vitamins
- Minerals



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Research on CIH for people with SCI

- PRACTICES

- Acupuncture
- Biofeedback
- Chiropractic and manual therapy
- Electromagnetic therapies
- FES-assisted exercise
- Massage and healing touch
- Relaxation therapy
- Tai chi



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Research on CIH for people with SCI

- Research has focused on treatments for pain
- May be effective:
 - Acupuncture
 - Biofeedback
 - Chiropractic
 - Herbs, vitamins, and minerals
 - Hypnosis
 - Massage and healing touch
 - Relaxation therapy
 - TENS
 - Yoga and tai chi



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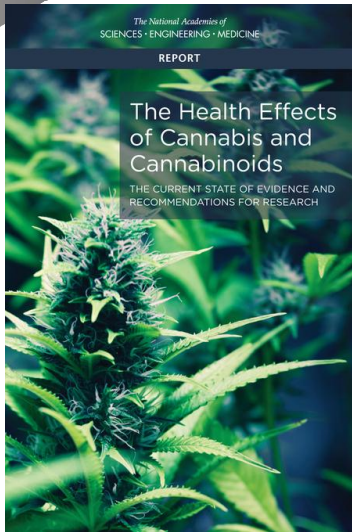
What about medical marijuana?

- Craig Hospital and our physicians do not condone, support, or prescribe marijuana for our patients with SCI or TBI
- Cannabis has been used for medicinal purposes since 2737 BC
- Remains illegal at the Federal level, so research is limited



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What about medical marijuana?



- 468 page report
- Summarizes therapeutic and harmful effects
- Recommendations for future research

"There is insufficient or no evidence to support or refute the conclusion that cannabis or cannabinoids are an effective treatment for symptoms of spasticity in patients with paralysis due to spinal cord injury"



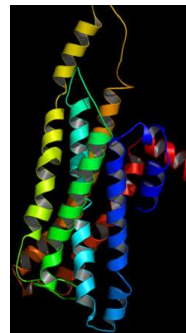
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What about medical marijuana?

- The Use of Medical Marijuana to Manage Symptom Burden in Spinal Cord Injury from the 2014 Spinal Cord Injury Wellness Summit

http://sci.washington.edu/summit2014/medical_marijuana.asp

- Presentation covers:
 - History of medical cannabis
 - Physiological effects
 - Current scientific evidence



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What about medical marijuana?

- The Prevalence and Intent of Cannabis Use in Individuals with Spinal Cord Injury or Traumatic Brain Injury in Colorado
- Anonymous survey
 - Pre- and post-injury cannabis use
 - Reasons for using
 - Method and frequency of use
 - Negative side effects
- Data are still being analyzed



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Are you considering a CIH approach?

- Be an educated consumer [*ClinicalTrials.gov*](https://clinicaltrials.gov)
A service of the U.S. National Institutes of Health
- Learn about factors that affect safety
- Everyone is different
- Talk to your health care providers
- Find out potential side effects and drug interactions



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Choosing a CIH practitioner

- Choose a provider carefully
 - Check with your doctor for recommendations
 - Education, training, licensing, and certifications
 - Safe, coordinated care
 - Training and experience with SCI?
 - Contact your insurance provider
 - Keep all providers on the same page



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Chanda Plan Foundation

- Mission
- SCI Waiver Project
- Funding for integrative health services available nationwide
 - Adaptive exercise
 - Acupuncture
 - Massage
 - Chiropractic
 - Adaptive yoga



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Evaluating online resources

- **Who?**
 - Who runs the Web site? Can you trust them?
- **What?**
 - What does the site say? Do its claims seem too good to be true?
- **Where?**
 - Where did the information come from? Is it based on scientific research?
- **When?**
 - When was the information posted or reviewed? Is it up-to-date?
- **Why?**
 - Why does the site exist? Is it selling something?



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The key takeaway?



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Resources on the web

- National Center for Complementary and Integrative Health (NCCIH): <https://nccih.nih.gov/>
- Facebook: www.facebook.com/nih.nccih
- Twitter: www.twitter.com/nih_nccih
- YouTube: www.youtube.com/c/nih_nccih
- Pinterest: www.pinterest.com/nccih



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Resources on the web

- 6 things to know when choosing a CIH practitioner:
<https://nccih.nih.gov/health/tips/selecting>
- Guide to finding and evaluating online resources:
<https://nccih.nih.gov/health/webresources>



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Resources on the web


- Finding clinical trials: <https://clinicaltrials.gov/ct2/home>

Search (all fields optional) 

Condition / Disease: 

Other Terms: 

Country:  

State:  

[Advanced Search](#)

[Help](#) | [How to Use Search Results](#) | [Glossary](#)

6 Studies found for:

biofeedback | Spinal Cord Injuries | United States



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Resources on the web

- Finding clinical trials: <https://clinicaltrials.gov/ct2/home>

Row	Saved	Status	Study Title	Conditions	Interventions
1	<input type="checkbox"/>	Not yet recruiting	Biofeedback for Wheelchair Users	Spinal Cord Injuries	Other: Biofeedback
2	<input type="checkbox"/>	Completed	Chronic Pain and Brain Activity in Spinal Cord Injury	Spinal Cord Injury	Other: Hypnosis; Other: Meditation; Other: Neurofeedback training; Other: Two different levels of IDCS
3	<input type="checkbox"/>	Active, not recruiting	Utility of an Animated Bowel Biofeedback Training Routine to Improve Bowel Function in Individuals With SCI	Spinal Cord Injury; Constipation; Fecal Incontinence; Neurogenic Bowel	Behavioral: Bowel Biofeedback; Behavioral: Anorectal Manometry
4	<input type="checkbox"/>	Recruiting	Neural Adaptation After Tendon Transfer and Training in Tetraplegia	Spinal Cord Injury	Behavioral: task-based training
5	<input type="checkbox"/>	Unknown †	To Determine the Therapeutic Effect of the Music Glove and Conventional Hand Exercises to Patients With Spinal Cord Injuries	Spinal Cord Injuries	Device: Music Glove; Other: Conventional Hand Exercise Program
6	<input type="checkbox"/>	Unknown †	Proprioception Testing in Persons With Sensorimotor Impairment	Spinal Cord Injury; Stroke; Acquired Brain Injury	Device: AMES Therapy



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Resources on the web

- Craig Hospital overview on CIH approaches for people with SCI:

<https://craighospital.org/resources/topics/complementary-alternative-medicine>

- Spinal Cord Injury Model System Information Network overview on CIH for people with SCI:

<https://www.uab.edu/medicine/sci/daily-living/managing-personal-health/complementary-a-alternative-medicine>



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Resources on the web

- Paralyzed Veterans of America:

<http://www.healingtherapies.info>



- Human Spinal Cord Injury: New and emerging therapies:

[http://www.sci-therapies.info/
table_of_contents.htm](http://www.sci-therapies.info/table_of_contents.htm)



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Resources on the web

- The Chanda Plan Foundation:
<http://iamtheplan.org/systemic-change/>
- Eligibility information and applications for provider-based services due Nov 9:
<http://iamtheplan.org/direct-services/>



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Resources on the web

- The Health Effects of Cannabis and Cannabinoids: The current state of evidence and recommendations for research:
<https://www.nap.edu/read/24625/chapter/1#ii>
- The Use of Medical Marijuana to Manage Symptom Burden in Spinal Cord Injury:
http://sci.washington.edu/summit2014/medical_marijuana.asp



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Resources on the web

- Adaptive yoga videos:
<https://www.youtube.com/playlist?list=PLDCDF5A650A35413C>
- Adaptive tai chi:
<http://www.disabledsportsusa.org/sport/tai-chi/>



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Questions?

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