



Conversations About Complementary Therapies and PD

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Conversations About Complementary Therapies and PD

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Our Mission



The Parkinson's Foundation makes life better for people with Parkinson's disease by improving care and advancing research toward a cure. In everything we do, we build on the energy, experience and passion of our global Parkinson's community.

We have everything you need to live better with Parkinson's.



Better Lives. Together.

Our Goals



To help our global community live better with Parkinson's, we pursue **three goals**:



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Thank You!



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RECORDING

Expert Briefings are recorded and archived on **Parkinson.org/ExpertBriefings** within one week

SLIDES

Download today's presentation via link in the chat.

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Poll: Getting to Know You



What best describes your connection to Parkinson's disease?

- Person with PD
- Spouse/Partner
- Parent has/had PD
- Other family
- Healthcare Professional
- Physician/Clinician
- Scientist/Researcher
- Nurse/Nurse Practitioner
- Other

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Meet Your Presenter



Natalie Diaz, MD
Pacific Neuroscience Institute

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Conversations About Complementary Therapies and Parkinson's Disease

Natalie Diaz, MD
Pacific Neuroscience Institute
Torrance, CA

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Disclosures

Natalie Diaz, MD

- **Research Support:** pharmaceutical trials with Prilenia Therapeutics, Civitas Therapeutics, Pfizer, Adamas Pharmaceuticals, Osmotica Pharmaceutical
- **Speaker's Bureau/Honoraria/Consulting:** none

I learn from my patients everyday.



Doctor with Patient Cartoon.svg from Wikimedia Commons by Videopasty.com

Complementary therapies:

- What are they
- What is their appeal
- The Good, the Bad and the Ugly
- What should you do if you are considering using them

Complementary therapies – products and practices taken alongside (“complement”) conventional medicine.

Alternative therapies – in place of traditional medicine.

Integrative Medicine – conventional medicine in combination with complementary therapies that have been proven safe and effective.

Statistics - Patients

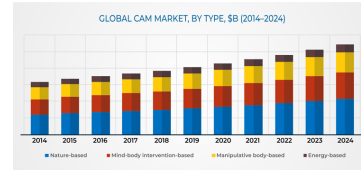
40% of U.S patients with PD use complementary therapies. (75% Eastern countries).

Women more likely than men to use alternative therapies.

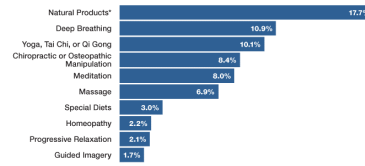
Most commonly used complementary therapies:

- Natural products (vitamins and herbs) in the USA
- Traditional Chinese or Ayurvedic in Asia
- Mind and body practices (acupuncture, yoga and massage) in Europe and Scandinavia.

More than half of Americans do not consult their treating physicians before starting.



10 most common complementary health approaches among adults—2012



Statistics – Healthcare Providers

(3) With approximately what percentage of your patients do you talk about possible benefits of using CAM therapies?

0–25	88
26–50	7
51–75	2
76–100	2
NR	1

(4) With approximately what percentage of your patients do you talk about possible harmful outcomes of using CAM therapies?

0–25	64
26–50	17
51–75	11
76–100	7
NR	1

(5) Who usually initiates discussions of benefits and risks of a CAM therapy?

I initiate	26
Patient initiates	63
Third party initiates	1
Not applicable	9
NR	1

Physicians' Attitudes Toward Complementary and Alternative Medicine and Their Knowledge of Specific Therapies: A Survey at an Academic Medical Center. eCAM 2006;3(4)495–501

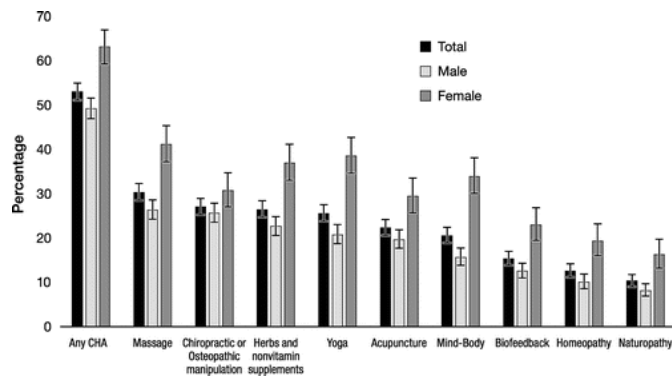
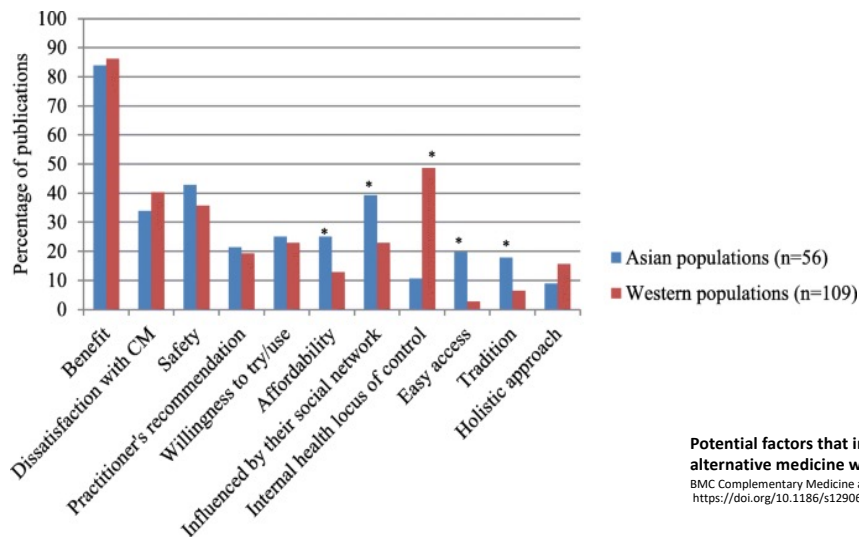


FIG. 1. Prevalence of recommendations for complementary health approaches among office-based physicians, by physician's sex: United States, 2012. Stussman B et al. J Altern Complement Med. January 2020;26(1):25-33

Why do people seek complementary therapies?



Complementary Therapies in PD The Good, the Bad and the Ugly



The Good

- Complementary Therapies focus on:
 - Wellness vs. symptoms of the condition
 - Treatment of the whole person (mental, emotional, spiritual and physical)
 - Empowerment, sense of control over one's health
- Most with few and relatively mild potential risks and side effects in modest doses.
- Complementary therapies may be most useful to alleviate non-motor symptoms (sleep, nausea, constipation) and improve general well being by reducing stress.

Complementary Therapies in PD

The Good, the Bad and the Ugly



The Bad

- Evidence in humans is lacking to support most complementary therapies in PD.
- Can be costly, most not covered by insurance.
- Herbs and supplements not regulated by the FDA for product labeling, safety or purity.
- Interaction of herbs and supplements with prescription medications and with each other.
- Adverse drug reactions with complementary therapies are not reported leading some people to believe that CAM is safe with traditional medicine is toxic.

Complementary Therapies in PD

The Good, the Bad and the Ugly

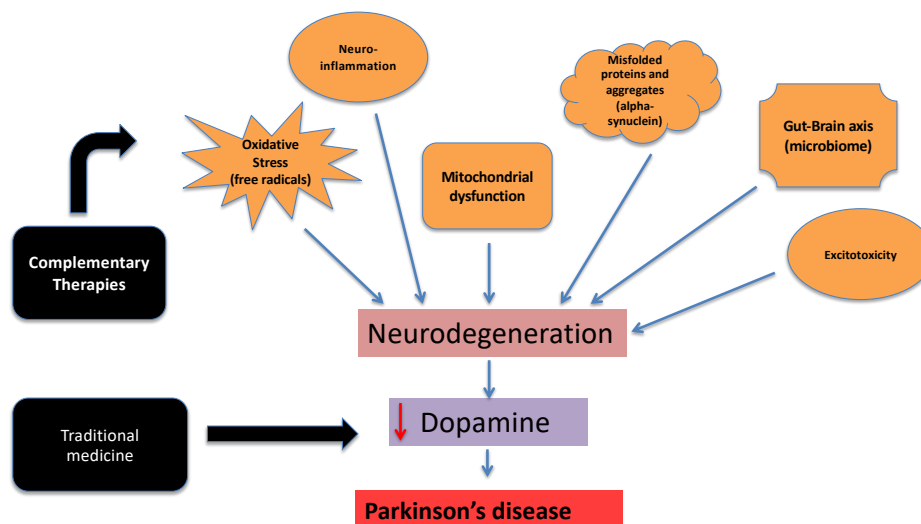


The Ugly

- False claims marketed as curative or neuroprotective.
- Portrayal of conventional medicines as toxic and natural products are the alternative.

Scammers selling fake cures for Parkinson's and Alzheimer's are getting away with it
A government watchdog caught supplement companies making what appear to be illegal claims in their ads
By [Rachel Becker](#) Jun 22, 2017, 10:19am EDT

Pathological Mechanisms in PD



Why is research in PD so hard?

- ❖ Exact cause of PD is not known
- ❖ Animal models of PD may not translate to humans.
- ❖ Individual variability – genetic, exposures, clinical profile
- ❖ Appropriate biomarkers for PD
- ❖ Lack of interest in testing natural products
- ❖ Limited funding

National Institute of Health (NIH)

1998 - National Center for Complementary and Alternative Medicine (NCCAM) founded.

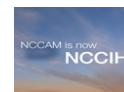


1998 – NCCAM awards its 1st research grant.



2000 – NCCAM's 1st 5 yr-strategic plan

2014- NCCAM renamed the National Center for Complementary and Integrative Health (NCCIH)



2017 – NCCIH launches “Know the Science”



2018 – NCCIH releases its 1st mobile app HerbList



NCCIH Classification of Complementary Therapies

Biologically Based	Herbs, vitamins, dietary supplements, functional foods
Mind-Body Techniques	Biofeedback, mediation (mindfulness), relaxation techniques, guided imagery
Manipulative and Body Based Methods	Massage, chiropractic manipulation, reflexology, whole body vibrational therapy
Energy Therapies	Acupuncture, acupressure, Qi-gong, T'ai chi, Reiki
Alternative Medical Systems	Traditional Chinese or Ayurvedic medicine, homeopathy

Vitamins and Supplements in PD

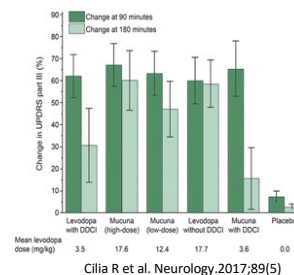
Product	Evidence	Side effects and toxicity
Coenzyme Q10	2 high quality studies (total 680 patients) up to 2400mg daily. Final results- safe and well tolerated no evidence of clinical benefits.	Can promote clotting. Interacts with blood thinners (Coumadin) aspirin, plavix. Can lower blood pressure.
Creatine	2 high quality studies. No effect on PD progression or symptoms. Possibly increases mood	
Vitamin E	DATATOP study – Vit E does not stop PD progression	Can increase risk of bleeding, interaction with Coumadin, aspirin and plavix. In men, doses >400 IU associated with prostate cancer
Glutathione	oral, intravenous and intanasal. No benefit.	
Omega-3 fatty ACIDS	1000mg O3FA (flaxseed oil) and 400 IU vitamin E may decrease inflammatory markers and improve motor function	GI and neurological side effects
CDP-Choline	400mg 3 times daily – may lower levodopa dose	
Phosphatidylcholine	100mg 3 times daily improve mood and motor function	Interacts with other medications
Resveratrol		Interact with aspirin/Plavix and anticoagulants, also mild estrogenic activity
Beta carotene/Vitamin A		Skin pigmentation (beta carotene) Nausea, dizziness, headaches (vitamin A)
VITAMIN B3 (NIACIN)		Facial flushing and tingling
Vitamin C		
VITAMIN D3		Lower effect of statins. Elevate blood calcium level if Vitamin D taken with thiazide diurectics

Herbs and Botanicals

Product	Warnings
Ginkgo biloba	Ses – headache, stomach upset, palpitation, constipation. Can interact with many medications including blood thinners.
Curcumin	Nausea, diarrhea
Ginseng	
Camellia sinensis (Green, black and oolong teas)	Nausea, rash, jitteriness, liver toxicity May cause weight loss
Epigallocatechine-3-gallate (EGCG)	Dizziness, low blood sugar
Lion's Mane (Hericium erinaceus)	Increased bleeding, interaction with blood thinners
Milk thistle	Abdoninal bloating, duarrhea, loss of appetite May lower blood sugar in people with diabetes
Quercetin	Headache, nausea.
Galllic Acid	
Vincamine	Low blood pressure, sedation, proarrhythmic effect
Red clover	Headache, nausea, muscle aches Estrogen-like effects – bloating, weight gain, tender breasts

Mucuna Pruriens (velvet bean)

- Legume found in Southeast Asia
- Seeds contain about 6-9% levodopa by weight
- Evidence:
 - 2 single dose studies (26 patients total) – MP with faster action, longer duration than carbidopa/levodopa. Similar efficacy. No worsening of dyskinesia.
 - Longer study, 14 patient, 16 weeks crossover – 50% discontinued due to side effects or worsening motor function
- Drawbacks:
 - Long-term use - may become complicated, efficacy or safety not known
 - Edible products have variable amount of levodopa and not regulated for content or contamination
 - Nausea, bloating, insomnia, headache, confusion, hallucinations
 - Interact with with meds for diabetes, antidepressants, can lower blood pressure



Cannabinoids

One of hundreds of substances in the cannabis sativa plant;
> 100 cannabinoids.

Main cannabinoids:

- Tetrahydrocannabinol (THC) – euphoirc effects
- Cannabidiol (CBD) – not psychoactive
- Cannabinol(CBN), Cannabigerol(CBG), Cannabinodiol(CBDL)

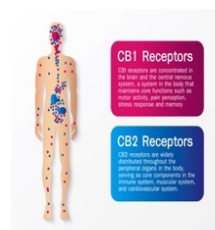


Only FDA approved uses:

- Epidiolex – purified CBD. Rare seizure disorders in children
- Dronabinol, nabilone – synthetic THC. Cancer/chemotherapy induced nausea/vomiting, weight loss in HIV/AIDS
- Sativex – THC+CBD in Europe for nerve pain, spasticity, overactive bladder in MS

Small studies with possible benefit:

- Anxiety, depression, neuropathic pain, anxiety
- Improves sleep quality, fewer disturbances, decreased time to fall asleep
- Reduction of neuropathic pain



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Medical Marijuana, inc.

Cannabinoids

Study	# patients	Product	Results
Sieradzan et al	5	Nabilone (synthetic THC)	Reduction in dyskinesia intensity and total time; Improvement in painful dystonia (2 patients)
Carroll et al	17	Cannador (CBD+THC)	No improvement in motor function or dyskinesias
Mesnage et al	8	Rimonabant (selective CB1R blocker)	No effect on motor symptoms or dyskinesias
Chagas et al	21	CBD (2 doses)	No change in motor function. Improved QOL in high dose group

1. Carroll CB, Bain PG, Teare L, et al. . Cannabis for dyskinesia in Parkinson disease: a randomized double-blind crossover study. *Neurology*. 2004;63:1245–1250
2. Chagas MH, Zuardi AW et al. . Effects of cannabidiol in the treatment of patients with Parkinson's disease: an exploratory double-blind trial. *J Psychopharmacol*. 2014;28:1088–1098
3. Mesnage V, Houeto JL, Bonnet AM, et al. . Neurokinin B, neurotensin, and cannabinoid receptor antagonists and Parkinson's disease. *Clin Neuropharmacol*. 2004;27:108–110
4. Sieradzan KA, Fox SH, Hill M, et al. . Cannabinoids reduce levodopa-induced dyskinesia in Parkinson's disease: a pilot study. *Neurology* 2001;57:2108–2111

Cannabinoids

Safety issues to consider:

- Serious lung injury from vaping THC containing products
- Absorption and effect from edibles is delayed
- Liver metabolism can create interaction with other medications
- Side effects may include low blood pressure, fatigue, dizziness, mood or cognitive changes, changes in balance, hallucinations, changes in weight

Quality control:

- No governing body to regulate quality or proper labeling
- Contamination with microorganisms, pesticides, other substances
- Cannabinoid content found to differ between manufacturers and from what's on label

Parkinson's Foundation Consensus Statement on the Use of Medical Cannabis for Parkinson's Disease (2020)

Other useful supplements

Melatonin – useful for sleep onset insomnia and dream enactment

Chamomile – may help sleep and anxiety.

Passionflower – may help sleep and anxiety

Valerian root – may help sleep. Ses may include headache, stomach upset and mental fog in some people

Ginger – can cause heartburn, diarrhea

Peppermint oil – may help indigestion

Flaxseed/flaxseed oil – contains fiber, may help constipation

Cranberry extract – may reduce the risk of recurrent UTI

Mind-Body Practices

Mindfulness meditation :

- ❖ Easy to learn, takes practice
- ❖ Free apps – UCLA Mindful, Insight Timer, Mindfulness Coach, Smiling Mind...
- ❖ May help to reduces stress, improve concentration, decrease anxiety, improve sleep

Yoga

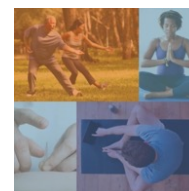
- ❖ Used by many for flexibility, stress relief and relaxation
- ❖ Some evidence that gentle yoga can improve mobility, balance, strength and flexibility

T'ai Chi :

- ❖ Safe, gentle
- ❖ Some evidence may improve balance, reduce falls and improve mobility
- ❖ ACR recommends as part of strategy for treatment of osteoarthritic pain

Qigong

- ❖ Several randomized placebo-controlled trials – mild motor effect but inconsistent, waned with time.
- ❖ Improvement in balance, fall reduction
- ❖ Improvement in pain, constipation and sleep



Deep breathing, Biofeedback, Imagery (+/- guided)

Manipulative and Body-Based Practices

Osteopathic – cranio-sacral therapy

- Gentle touch to manipulate the joints in the skull, pelvis, spine.
- Some evidence of effect for neuropathic pain.



Massage

- Relief of muscle tension, neck and back pain.
- May help circulation.

Whole body vibration

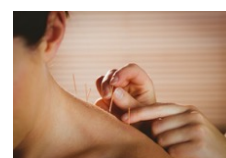
- Several studies, when compared vs tradition physiotherapy some advantage in gait and motor function.
- Inconsistent results.



Energy Therapies

Acupuncture

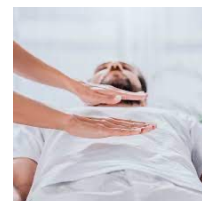
- ◇ Possible neuroprotective effects in animal models of PD.
- ◇ Mixed results in human studies of PD. Strong placebo effect in studies using a “sham” procedure.
- ◇ AAN and the Movement Disorders Society – no benefit in the treatment of PD
- ◇ Some studies in humans suggest that acupuncture may help ease chronic back and neck pain and reduced frequency of headaches.



Parkinson's News Today

Reiki & Therapeutic Touch

- No specific studies in Parkinson's disease
- Limited studies in general population – can help with stress, pain relief and mood



Traditional Medicine Systems

Traditional Chinese Medicine:

- In existence for nearly 3,000 years
- Focuses on restoring balance of life force (chi)
- Incorporates herbal medicine, acupuncture, acupressure and dietary modification

Ayurvedic medicine

- In practice for nearly 5,000 years
- Emphasizes balance of mind, body and spirit with the environment and restoring harmony

Native American Medicine

- ✧ Physical well-being associated with spiritual balance
- ✧ Includes prayer, healing touch, use of herbs, teas, tinctures and healing rituals

Key Points:

- ❖ Complementary therapies are natural products and practices that can be taken alongside traditional medicine.
- ❖ Promising data in animal models of PD but strong clinical data in humans is lacking.
- ❖ In general, most with few and relatively mild potential risks and side effects in modest doses but can be costly.
- ❖ Natural ≠ safe
 - Complementary therapies can have side effects and have potential for toxicity.
 - Can interact with medications and other products
 - Natural products and supplements not regulated by the FDA for quality or safety

What can you do?

- ❖ Be wary of therapies that promise a miracle.
- ❖ Talk to your healthcare providers before starting any complementary therapies.
- ❖ Introduce one complementary therapy at a time.
- ❖ Read about potential side effects and interaction with your other medications and OTC medications.
- ❖ Check for verification from independent laboratories:
 - United States Pharmacopeia www.usp.org/dietary-supplements-herbal-medicines
 - ConsumerLabs.com
 - NSF International www.nsf.org

Useful Resources:

National Center for Complementary and Integrative Health (NCCIH)

HerbList - <https://www.nccih.nih.gov/health/herblist-app>

U.S Food and Drug Administration

National Institute of Health Office of Dietary Supplements



2022 Expert Briefings



Wednesday, February 2

Sights, Sounds and Parkinson's
Ali G. Hamedani, MD, MHS



Wednesday, March 2

Conversations About
Complementary Therapies and PD
Nehal Mehta, MD



Wednesday, April 6

Can We Put the Brakes on
PD Progression?
Joash Lazarus, MD

Wednesday, September 7

The Impact of Physical
Activity in PD
Miriam Rafferty, PT, DPT, PhD

Wednesday, October 5

Understanding Gene and Cell-
Based Therapies in PD
Roger Barker, BA, MBB, MRCP, PhD

Wednesday, November 2

Let's Talk About Dementia
James Leverenz, MD

Register at Parkinson.org/ExpertBriefings

Resources and Support



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[Parkinson.org/AwareInCare](https://parkinson.org/AwareInCare)



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Resource and Support Continued



Podcast: Substantial Matters
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We're Here For You



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Before You Go...



Your feedback is important to us!
Please complete the evaluation after the close of this webinar.

EXPERT BRIEFING EVALUATION

Page 1 of 1

1. What best describes your connection to Parkinson's disease (PD)?

- Person with Parkinson's
- Spouse / Partner
- Parent has / had Parkinson's
- Other family of person with Parkinson's
- Friend of person with Parkinson's
- Healthcare Professional
- Other

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