



The Internet, Supplements & What to Do Now

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Living Well Parkinson's Disease Conference

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Doctor Google

Its there Use it WITH CAUTION!

AND

TALK to your doctor before acting



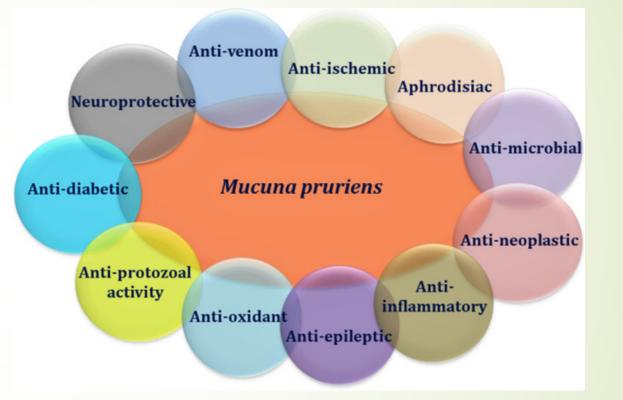


Supplement industry

- Pharmaceutical market is around 1.25 trillion U.S. dollars
- The Dietary Supplements market in the U.S. is estimated at \$151 Billion
- NOT regulated
- Where is it coming from?
- Obstacles in knowing efficacy: difficult to study & for studies to get funded

Mucuna puriens

- Contains levodopa, which is the precursor to dopamine
- Consistency is crucial: brand & dose
- Poorer absorption than carbidopa/levodopa
- May be a good alternative in areas where I-dopa is not readily available^(Cilia R, 2017)



Vitamin D

- Top selling supplement in the US in 2021
- Difficult to get from the sun
- Common deficiency in PD
- Helps commonly with non-motor PD symptoms like fatigue, mood, daytime sleepiness
- Higher fall risk with lower Vitamin D!(Pignolo 2022)



COVID & Vitamin D

Potential Role of Vitamin D in the Elderly to Resist COVID-19 and to Slow Progression of Parkinson's Disease

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Affiliations + expand PMID: 32397275 PMCID: PMC7287983 DOI: 10.3390/brainsci10050284 Free PMC article

Abstract

While we are still learning more about COVID-19, caused by the novel SARS-CoV-2 virus, finding alternative and already available methods to reduce the risk and severity of the disease is paramount. One such option is vitamin D, in the form of vitamin D₃ (cholecalciferol) supplementation, due to its potential antiviral properties. It has become apparent that older individuals have a greater risk of developing severe COVID-19, and compared to younger adults, the elderly have lower levels of vitamin D due to a variety of biological and behavioral factors. Older adults are also more likely to be diagnosed with Parkinson's disease (PD), with advanced age being the single greatest risk factor. In addition to its immune-system-modulating effects, it has been suggested that vitamin D supplementation plays a role in slowing PD progression and improving PD-related quality of life. We completed a review of the literature to determine the relationship between vitamin D, PD, and COVID-19. We concluded that the daily supplementation of 2000-5000 IU/day of vitamin D₃ in older adults with PD has the potential to slow the progression of PD while also potentially offering additional protection against COVID-19.

Fish Oil

- Regularly used in mood disorders such as depression, cognitive health and cardiovascular disease
- Shown to have neuroprotective properties & increase BDNF
- Possibly prevent levodopa induced dyskinesia?^(Chung K, 2017)



Glutathione

- Decreased in brains of PD patients^(Wei Y, 2020)
- Protects neurons from damage
- The most powerful antioxidant in our central nervous system
- Lower the blood glutathione the more severe the UPDRS and higher the PROPD^(Mischley L, 2016) & supplementation was associated with statisticially significant slower rate of progression^(Mischley L, 2017)
- Obstacles in supplementation: Difficult to absorb
- Food Sources? Fresh fruits & vegetables
- Other forms: intranasal, oral liposomal, oral powder, oral capsule, IV

B Vitamins

- Deficiency in B6, folate and/or B12 possible risk factor for PD development and increased progression (Fan X, 2020)
- Carbidopa depletes B6
- Symptoms associated: ALL PD. Primarily – mood disorder, neuropathy, cognitive impairment, daytime sleepiness, etc

- B12 deficiency can cause parkinsonism^(de Souza A, 2014)
- Meat is not the only source of B vitamins! Greens & beans are your friend!

High Dose Thiamine

- 100 mg of thiamine administered intramuscularly twice a week, without any change to personal therapy. All the patients were re-evaluated after 1 month and then every 3 months during treatment.
- It led to improved motor and non-motor symptoms that remained stable over the 3 months

What to do with this information?

- No placebo group
- Small study
- Relatively safe to try BUT you need a prescription





- Active form: Ubiquinol
- Deficient in PwP(Mischley L, 2012)
- Supplementation was associated with statisticially significant slower rate of progression^(Mischley L, 2017) BUT when adjusted for income it lost statistical significance.
- Meta Analysis in 2017 showed no significant improvement in motor symptoms with supplementation, although safe and well tolerated^(Zhen-Guo Z, 2016)

Probiotics

Research in the microbiome in PD is SKYROCKETING, so what about probiotics

- This shouldn't be a forever supplement
- 2022 meta-analysis showed probiotics can improve cognition & GI symptoms^(Xiang S et al, 2022)
- They have anti-cancer, anti-viral, neuroprotective, antiinflammatory, etc
- Current study on manufacturing a probiotic that produces I-dopa!

- PROS
 - Generally well tolerated, unless you have SIBO
 - Helps with constipation
- CONS
 - Quality is important!
 - Variety in strains in important

Where to start

- Get your levels checked!
 - Labs I regularly check on my patients: thyroid, cholesterol, B12, homocysteine, vitamin D, DHEA, kidney function, uric acid, inflammation markers, iron levels
- Reference ranges aren't always what is optimal for neurological health
- Eat food, real food
- Move your body! More days the better. At LEAST 30 minutes
- Lemon water
- Squatty potty
- Hydration (electrolytes!)

Questions?

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