

Review of WPC 2016

Medical Nutrition Therapy

Edinburgh Branch, Parkinson's UK

Notes by Dr. Alison Williams
based on presentations given by

Heather Zwickay, Dean of Research and Graduate Studies, Director of Helfgott Research Institute, Professor of Immunology, National University of Natural Medicine.

Matthew Brodsky, Associate Professor of Neurology, Oregon Health & Science University.

John E. Duda, Director, Parkinson's Disease Research, Education and Clinical Center Philadelphia VA Medical Center, Associate Professor of Neurology, Perelman School of Medicine at the University of Pennsylvania.

Brodsky defines nutrition as:

- The process of providing or obtaining the food necessary for health and growth.
- Expanded definition might include other things that nourish us – what we breathe, what we listen to, even how we socialise.

He says that proper and appropriate nutrition may play an important part in:

- Preventing Parkinson's Disease (PD)
- Medical therapies for PD
- Slowing the progression of PD
- Counteracting malnutrition

All three speakers stressed the impact our diet can have on both our PD and our overall health and wellbeing. Diet is more than just feeding ourselves, was the message: we are what we eat! We can do a huge amount for ourselves in supporting our own wellbeing through diet: there is a clear role of nutrition in managing our symptoms – motor and non-motor.

ABSTRACT (Zwickay): What if diet could not only influence Parkinson's symptoms but also slow disease progression? Would you be willing to change how you eat? There is growing research showing that nutrition has an impact on PD. The neurodegeneration of PD is thought to be caused by **inflammation** and **oxidative stress**** which slowly damage neurons. As a result of this progressive process, the brain does not communicate as well with the body. Fortunately, inflammation and oxidative stress can be improved by diet. Many of the nutrients thought to improve PD reduce inflammation, contain high levels of antioxidants, and promote the production of dopamine to assist the body's natural processes. By choosing the right foods, those affected by PD can improve their symptoms and may even slow disease progression. For this reason, nutrition should be an essential part of the care plan for people with Parkinson's.

**** Oxidative stress** is an imbalance between the production of free radicals and the ability of the body to counteract or detoxify their harmful effects through neutralisation by antioxidants. A free radical is an oxygen containing molecule that has one or more unpaired electrons, making it highly reactive with other molecules. Antioxidants are molecules present in cells that prevent these reactions by donating an electron to the free radicals without becoming destabilized themselves. [Dr Ananya Mandal, MD, News-Medical.net]

Oxidative stress is thought to contribute to the development of a wide range of diseases including Alzheimer's disease, Parkinson's Disease, the pathologies caused by diabetes, rheumatoid arthritis, and neurodegeneration in motor neuron diseases. In many of these cases, it is unclear if oxidants trigger the disease, or if they are produced as a secondary consequence of the disease and from general tissue damage." [Wikipedia]

What we can do? – Strategy

1. INCREASE ANTI-INFLAMMATORY & ANTIOXIDANT FOODS

- **Berries & citrus fruits**
- **Nightshade family** – tomato, aubergine, peppers
- **Spices** (especially) – curcumin, cinnamon, rosemary, turmeric
- **Oily fish**
- **Fibre and dark green vegetables**
- **Supplements** – vitamins B12, D, C, A; ginseng; spirulina, CoQ10, glutathione



Avoid:

- (1) **Transfats:** (fried foods) increases oxidative stress, which also increases pain.
- (2) **Sugars:** glucose spike in the blood creates inflammation spike in the brain.
- (3) **Dairy:** dairy breaks down uric acid – uric acid shuts down oxidative stress.

Substitute: Coconut oil and cold-pressed olive oil for cooking; 4 oz dairy per day is okay – substitute coconut milk.

Notes:

- Nightshades: nicotine protects against PD).
- Berries: the brighter and darker the better – highly antioxidative.
- Spices: get organic, not Chinese cinnamon (lead contamination).
- Green tea – antioxidant (can ward off PD for up to 7 years): it doesn't have to be strong – 15 secs. to brew is enough for health benefits.
- Coffee/caffeine – up to 6 cups per day reduces mortality.
- Wine – red contains anthocyanins and is good; white is bad – sugar levels high.

2. INCREASE BRAIN FOOD & HYDRATION

- Water – 8 glasses per day
- Caffeine
- Red wine (not white)
- Green tea
- Nuts – Brazil nuts, walnuts
- Cook with fish oil, olive oil, coconut oil



Avoid: anything containing artificial sweeteners: they train the body to crave sugar (insulin resistance) and they contain nerve toxins. No more fizzy drinks.

Substitute: sparkling mineral water.

Notes: water helps with digestion (constipation), keeping the brain watered so neural connections work better, countering other dehydration problems like dry eyes etc.



3. AVOID CHEMICALS & ENVIRONMENTAL TOXINS

- Buy organic, wash other fruit and vegetables.
- Limit milk and dairy.
- Avoid some fish: contain heavy metals/mercury, especially tuna (tinned OK) – Google them.
- High fructose corn syrup: contains mercury (peanut butter, ketchup, chocolate syrup etc.).
- Use eco-household cleaners.
- Don't cook in aluminium.
- Don't use pyrethroid insecticides.

4. OTHER RELEVANT FACTORS

Meal timing: Memory – 12 hour fast between supper at night and breakfast (13-14 hours even better) is very effective in countering memory loss; try for a 3 hour fast between breakfast and lunch and another 3 hour fast between lunch and supper. If tired in the afternoon, eat more protein at lunchtime.

Diet: Experiment with yourself – what suits you.