



**Parkinson's Disease Nutrition**

# What about Dairy?

# We Teach Food!

- Nutrition Consults
- Cooking Classes
- Meal Subscription Service
- Workshops
- Community Events; Lectures, Potlucks, Dinner Parties
- Resources

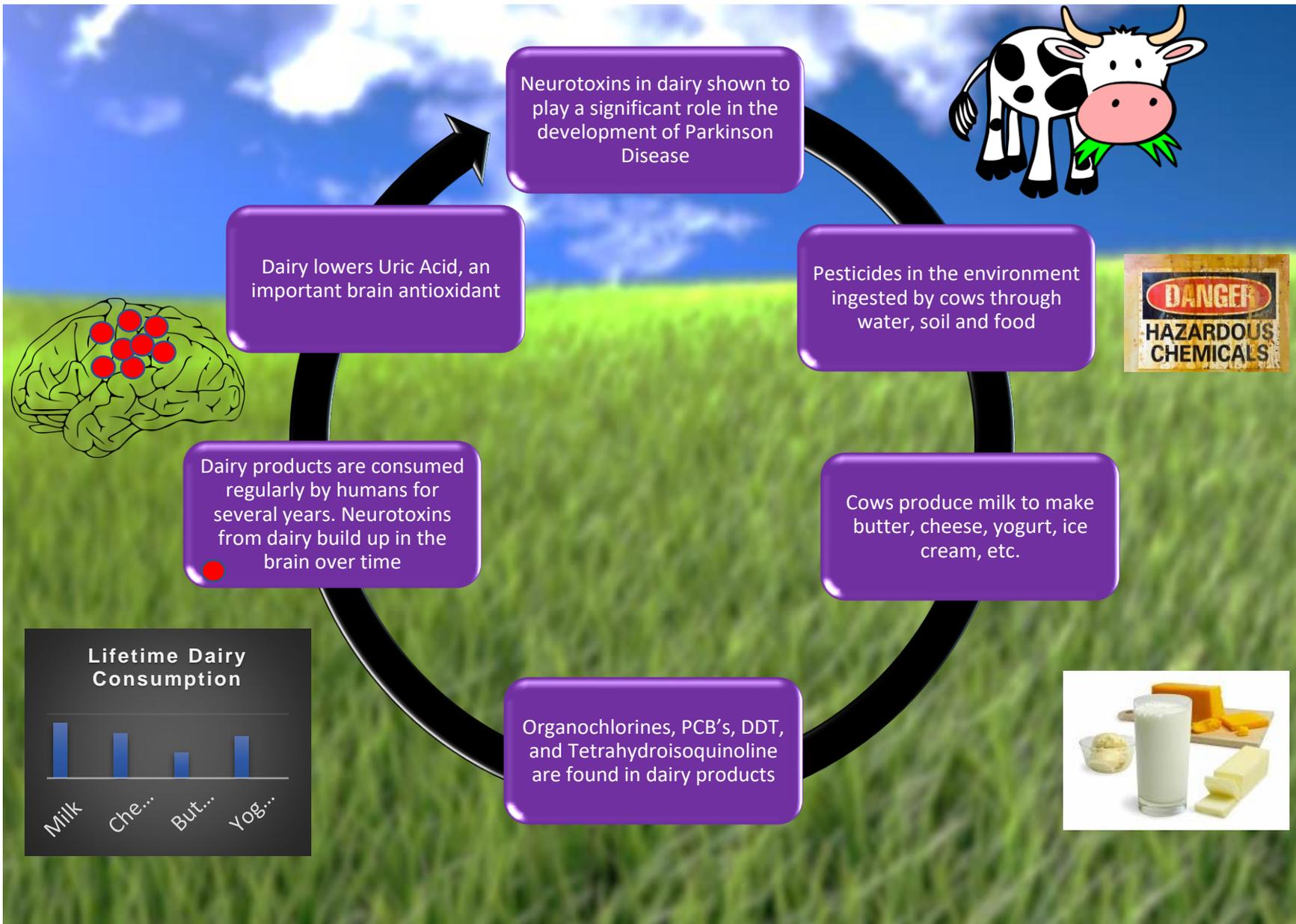
# Parkinson's and Dairy

Avoiding dairy can be beneficial to people with PD

<http://nutritionfacts.org/2013/08/29/treating-parkinsons-disease-with-diet/>

# Why should I avoid dairy?

- ▶ Every single prospective study on dairy products or milk and Parkinson's disease tended to find increased risk. It may be that “dairy products in the United States are contaminated with neurotoxic chemicals.”
- ▶ There's substantial evidence suggesting that “exposure to pesticides may increase Parkinson's disease risk,” and autopsies found higher levels of pollutants and pesticides in the brains of Parkinson's disease patients, and some of these toxins are present at low levels in dairy products.
- ▶ Toxins like tetrahydroisoquinoline, a Parkinsonism-related compound found predominantly in cheese. Although the amounts of this neurotoxin—even in cheese—are not really high, the concern is that the chemical may accumulate in the brain over long periods of consumption.



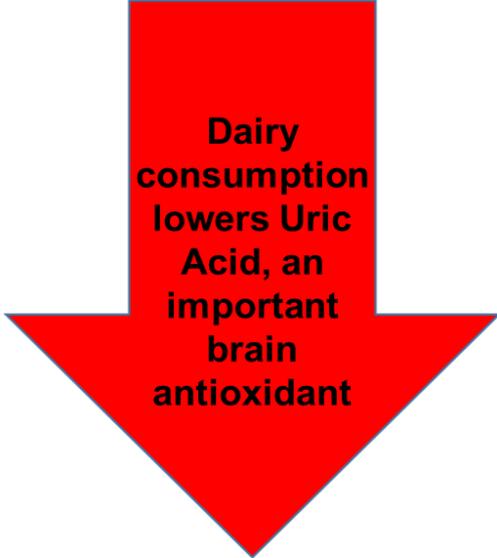
**Neurotoxins** -Neurotoxins are substances that are poisonous or destructive to nerve tissue. Neurotoxins are an extensive class of exogenous chemical neurological insults that can adversely affect function in both developing and mature nervous tissue.

**Organochlorines** – A class of compounds with a similar chemical structure that persist in the environment and in the bodies of humans and other animals long after their use such as **PCB's & DDT**, both found in the brains of Parkinson patients AND in dairy.

**Tetrahydroisoquinoline** - Parkinsonism-related toxin found predominantly in cheese. Although the amounts of this neurotoxin is low, the chemical may accumulate in the brain over long periods of consumption resulting in the brain damage associated with Parkinson's disease.

**Galactose** - Sugar in milk. Can cause damage to the brain if unable to detoxify

**Uric Acid** – An important brain antioxidant that protects nerve cells against the oxidative stress caused by pesticides. May also slow the progression of Parkinson's. **Milk lowers blood levels of Uric Acid.**



Dairy  
consumption  
lowers Uric  
Acid, an  
important  
brain  
antioxidant

# Foods made from Dairy

- ▶ Milk
- ▶ Cheese
- ▶ Yogurt
- ▶ Butter
- ▶ Coffee Creamer
- ▶ Ice Cream
- ▶ Cream Cheese
- ▶ Sour Cream
- ▶ Cottage Cheese

# Try:

- ▶ Dairy-free milks- Milks made from almonds, soy, hemp, oat, flax, cashews, coconut or macadamia nut
- ▶ Dairy-free yogurts- There are several dairy-free yogurts on the market
- ▶ Dairy free ice cream, yogurt, butter and cheese



# Calcium

- ▶ Good for bone health
- ▶ Lower blood sugar and cholesterol
- ▶ Osteoporosis
- ▶ Colorectal Cancer

It was proposed that calcium binds bile acids in the bowel lumen, inhibiting their proliferative and carcinogenic effects. In support of this hypothesis, studies in animals have indicated a protective effect of dietary calcium on bile-induced mucosal damage and experimental bowel carcinogenesis

# 25 PLANT-BASED CALCIUM SOURCES

 <b>SOY MILK</b> (Enriched) 290 mg/cup	 <b>TOFU</b> 250 mg/100g	 <b>SOYBEANS</b> 175 mg/cup	 <b>WHITE BEANS</b> 160 mg/cup	 <b>SPINACH</b> 145 mg/cup
 <b>TAHINI</b> 120 mg/tbsp	 <b>EDAMAME</b> 100 mg/cup	 <b>CHICKPEAS</b> 80 mg/cup	 <b>CHIA SEEDS</b> 75 mg/tbsp	 <b>ORANGE</b> 65 mg/1 unit
 <b>ADZUKI BEANS</b> 65mg/cup	 <b>BROCCOLI</b> 60mg/cup	 <b>OKRA</b> 60mg/cup	 <b>SNAP BEANS</b> 55mg/cup	 <b>FIG</b> 40mg/2 units
 <b>SWEET POTATO</b> 40mg/medium unit	 <b>PARSLEY</b> 40mg/cup	 <b>CARROT</b> 40mg/medium unit	 <b>PUMPKIN</b> (MASHED) 40mg/cup	 <b>CABBAGE</b> 35mg/cup
 <b>ALMONDS</b> 30mg/9 nuts	 <b>QUINOA</b> 30mg/cup	 <b>TOMATO</b> 30mg/2 units	 <b>ARUGULA</b> 30mg/cup	 <b>BRAZIL NUTS</b> 25mg/3 units

**RECOMMENDED  
DAILY ALLOWANCE**

**700 MG**  
CHILDREN 1-3

**1,000 MG**  
CHILDREN 4-8  
FEMALE 19-50  
MALE 19-70

**1,200 MG**  
FEMALE 51+  
MALE 71+

**1,300 MG**  
CHILDREN 9-18

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# Vitamin D

## Purpose of Vitamin D

- ▶ Strengthens bones
- ▶ Improves effectiveness of immune system
- ▶ Helps decrease incidences of depression
- ▶ To allow the intestines to stimulate and absorb calcium and reclaim calcium that the kidneys would otherwise excrete.

# Vitamin D

- ▶ Fortified plant-based milks
- ▶ Fortified cereals
- ▶ Fortified juices (orange juice)
- ▶ The Sun- The body makes vitamin D when skin is exposed to sunlight
- ▶ Salmon

## Sources of Vitamin D for Vegans

The infographic features a central yellow background with a white wavy border at the top and bottom. It lists eight sources of Vitamin D for vegans, each accompanied by a circular image and a label in a yellow box. The sources are arranged in two columns. A red line with small circles at the ends runs horizontally through the middle of each row, connecting the images and labels.

- Sunlight
- Oatmeal
- Mushrooms
- Soy Milk
- Yogurt
- Tofu
- Orange Juice
- Almond Milk

vitaminsonly.com.au

# Constipation

- ▶ People with PD already suffer from constipation due to medications and slower digestion
- ▶ Dairy products have binding materials that cause constipation.
- ▶ Most people are allergic to dairy and the allergy itself causes constipation
- ▶ If lactose intolerant dairy causes diarrhea and stomach cramps



# A note on bowel movements

- ▶ The minimum fecal output should be about half a pound per day for cancer prevention. Larger bowel movements have also been associated with lower rates of appendicitis, colon cancer, constipation, and diverticulitis. Those who eat plant-based diets, on average, have the healthiest stools and are the most regular. This may be due to the fiber found in plants. On a traditional African diet, which consists largely of plants, constipation is essentially nonexistent.

# What can I do?

- ▶ Keep a food diary
- ▶ Try out some non-dairy products in place of your everyday products
- ▶ Get your vitamin levels tested by your GP to see if you have any deficiencies
- ▶ Attend a cooking class, recipe exchange or potluck to try new foods and get fresh ideas.

*“There is no other medication, if you will,  
that’s taken with such regularity as food”*

*-Dr. Randy Horwitz*

# References

- ▶ <https://www.medicalnewstoday.com/articles/161618>
- ▶ <https://my.clevelandclinic.org/health/articles/15050-vitamin-d--vitamin-d-deficiency>
- ▶ <https://ods.od.nih.gov/factsheets/VitaminD-Consumer/>
- ▶ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4291444/>
- ▶ <https://nutritionfacts.org/video/preventing-parkinsons-disease-with-diet/>
- ▶ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6683260/>