

NUTRITION AND PARKINSON'S DISEASE

Good nutrition plays a particularly critical role for individuals with Parkinson's disease (PD). A balanced diet helps to maintain your energy, contributes to brain health, maximizes the potentiation of medications, and promotes wellbeing (APDA, 2009). Each individual's needs for nutritional intake will vary, so it is prudent to consult with a healthcare professional to determine what is best. Generally, a balanced diet involves eating regularly and not skipping meals, eating from a variety of food groups, and eating to maintain a healthy weight (Traviss, 2007). Following the guidelines provided in the Canadian Food Guide will ensure that you are getting the recommended daily servings you need from each of the four food groups. Outpatient nutrition counselling is also available at many hospitals with a referral.

While this may seem like simple advice, some people with Parkinson's may find it challenging to ensure they are eating a balanced diet due to their lifestyle or symptoms, which may affect the ability to shop, prepare food, and eat. You may find it helpful to seek assistance from others for shopping and meal preparation (Traviss, 2007).

Parkinson's Diet

Research has provided some evidence on the possible benefits of certain foods; currently, no singular diet has been shown to treat Parkinson's disease or its symptoms, but a healthy and balanced diet can improve general well-being (MJFF). So, what can you eat as part of an informed diet? Look for foods that are neuroprotective, anti-inflammatory, and antioxidant-rich.

- *Neuroprotective* foods have been studied for their potential to improve brain health. Nuts have shown the most promise; however, they are high in calories, so your intake should be limited to a handful per day. Consider making a healthy granola for breakfast with chopped nuts and dried fruit, but skip the oatmeal and grains. If you have trouble swallowing, you can incorporate a nut butter into your diet instead. In addition to nuts, some herbs and spices have been shown to keep the brain healthy. These include turmeric, ceylon cinnamon, and rosemary.
- *Anti-inflammatory* foods may be useful in keeping the brain healthy. The types of fat you consume are important in reducing inflammation. One type of oil that appears to have positive benefits is coconut oil, and you can cook with it as you would with olive oil. Other foods that are considered to have anti-inflammatory properties are dark, leafy greens, such as kale, spinach, and collard greens, soy products, and oily fish like salmon, tuna, and mackerel (Zwickey, 2016).
- *Antioxidants* are "substances that may protect your cells against the effects of free radicals – molecules produced when your body breaks down food, or is exposed to tobacco smoke and radiation" (Mayo Clinic). Essentially, free radicals are toxic substances formed from stressors. When you have too many free radicals, the body is said to be under oxidative stress. A diet high in antioxidants may offset cellular damage and oxidative stress (MJFF). Look for fruits that are purple and red, like blueberries and raspberries. These berries contain pigments called anthocyanins, which are well-known antioxidants (Zwickey, 2016).

Diet and Medication

Your mealtimes may affect how quickly medications are absorbed into your body. For example, some individuals who take carbidopa-levodopa (SINEMET®) may find that protein-rich foods increase the time it takes for their medication to kick in, or make it less effective (Zwickey, 2016). If you find that this is an

issue for you, try taking your carbidopa-levodopa 30 minutes before your meal with a carbohydrate food, such as a cracker or biscuit (Parkinson's UK, 2012).

Pyridoxine, or Vitamin B6, has also been found to reduce the effects of levodopa, when levodopa is taken on its own. It is recommended that if you are taking levodopa by itself, you avoid taking products containing B6 unless specifically discussed and prescribed by your doctor. Foods such as bananas, egg yolks, lima beans, meats, peanuts, and whole grain cereals contain large amounts of pyridoxine. Check with your doctor as to how much of these foods should be in your diet while taking levodopa (Mayo Clinic, 2015).

Constipation

Constipation occurs when stools are hard and difficult to pass, or when a person has infrequent bowel movements. It is a common symptom of PD, and may cause poor absorption of medication (Parkinson's UK, 2013). While you may feel that this is a difficult or embarrassing issue to raise, it is critical to discuss it with your healthcare provider as severe constipation can lead to bowel obstruction, a potentially life-threatening condition. There are, however, some steps you can take to help relieve constipation:

- Incorporate more fibre-rich foods into your diet. Foods such as whole grain bread, pasta, brown rice, fruits and vegetables, and breakfast cereals containing wheat bran or oats, will absorb fluid and form a soft stool that can be passed more easily. Although you may think it is an easy fix to add loose extra bran to your food, it is not recommended, as this can lead to bloating and reduced absorption of vitamins and minerals.
- Drink more fluids. It is recommended that you drink 8 to 10 cups of water every day. You can count any fluid intake from healthy fruit juices, milk, and tea towards this amount. Try to avoid carbonated drinks, as they cause some people to feel bloated (Parkinson's UK, 2012).
- Exercise to improve regularity. Anything that gets you out and moving can help you maintain a healthy digestive tract.

Bone Health

Osteoporosis is caused by a low bone-mineral density. Risk factors include old age, low body weight, smoking, excessive alcohol consumption, limited exposure to sunlight, adequate intake of vitamin D and calcium, and lack of weight-bearing exercise.

Calcium can be obtained from a wide variety of foods, including nuts and seeds, legumes, dark leafy greens, starchy foods, or dairy products. Vitamin D is primarily obtained from sun exposure, and present in fatty fish, and fortified food products like milk, yogurt, or breakfast cereals.

Due to the fact that individuals with Parkinson's disease are at an increased risk of falling, having osteoporosis can be particularly worrisome. Talk to your doctor about having your bone-mineral density checked, as medical treatments may be available (Traviss, 2007).

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The information contained in this helpsheet is for general information purposes only. Any changes to your treatment or course of therapy, including dietary additions or restrictions, should be made in consultation with a physician or other qualified healthcare professional.

Additional Resources

Dietician Services | HealthLink BC | www.healthlinkbc.ca/dietitian-services | 8-1-1

UBC Pharmacy Clinic | clinic.pharmacy.ubc.ca | pharmacists.clinic@ubc.ca | 604-827-2584

Canada's Food Guides (2016) | bit.ly/2DPg17A

Dietitians of Canada | www.dietitians.ca

Osteoporosis Society of Canada | www.osteoporosis.ca

Medication Absorption Helpsheet | Parkinson Society BC | bit.ly/pdmedicalabsorption

Sources

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