

# The Influence of Food Habits on the Parkinson's disease

Gaia Rocchitta\*

Department of Chemistry, University of Sassari, Italy

## INTRODUCTION

Parkinson's disease (PD) is the second most common neurological illness in the world. Observational studies have connected the onset of Parkinson's disease to environmental exposures and lifestyle habits, indicating a vast field of research to enhance PD prevention and disease modification in populations as well as individuals. Gene–environment interactions, as well as other factors such as chemical exposure, physical activity, dietary choices, and smoking, have been studied extensively up to this point. Several low-risk and potentially high-yield lifestyle recommendations, particularly dietary changes, have been established based on observational research. For neuroscientists and nutritional neuroscientists, the function of diet in both neuroprotection and neurodegeneration has become increasingly relevant. Several studies have found that some foods may raise an individual's risk of Parkinson's disease, while others may protect the brain.

Such findings are not surprising, as some meals have the ability to influence mitochondrial activity, and hence free radical formation, while others conduct critical antioxidant functions, which are required to prevent free radical damage. As a result, a poor diet has been shown to cause an increase in oxidative stress, compromising the antioxidant defence system, whereas a well-balanced diet can lead to some neuroprotection. Some nutrients, such as dairy products, have been related to a higher risk of Parkinson's disease, whereas others, such as phytochemicals, caffeine, genistein, or tea polyphenols, as well as alcohol, have been connected to a slower progression of the disease. There is a dearth of epidemiological studies examining dietary factors and Parkinson's disease, thus those studies demand further attention.

Furthermore, research investigating the influence of nutrients in PD should take into account crucial characteristics such as non-

motor symptoms such as dysphagia, melancholy, constipation, or dehydration, which can have a significant impact on diet quality. With the exception of Alzheimer's disease, Parkinson's disease (PD) is the most common neurological disease. The substantia nigra pars compacta is characterised by a slow and progressive loss of pigmented, dopamine-containing neurons. Other dopaminergic neurons degenerate as well, though to a lesser extent. The ensuing dopamine shortage in the basal ganglia induces bradykinesia, muscle rigidity, rest tremor, and impairment of posture and gait, which are all characteristic parkinsonian motor symptoms.

Non-motor symptoms in people with Parkinson's disease include cognitive deficiencies, olfactory dysfunction, mental abnormalities, autonomic dysfunction, and sleep difficulties; some of these symptoms may appear years before motor loss. According to a meta-analysis of studies on macronutrients and the risk of Parkinson's disease, protein, carbohydrate, cholesterol, and energy intake may not be independently related with PD risk. Individual nutrients and foods' effects on the risk of Parkinson's disease have yielded mixed results in studies.

In a systematic review, foods identified as potential nutritional risk factors were reported to be consumed significantly more frequently by people with PD compared to controls in at least one case-control study; these foods included vegetables, xanthophylls, xanthins, lutein, carbohydrates, monosaccharides, refined sugar, junk food (high in fat and sugar), lactose, animal fat, nuts, and seeds, while fish, eggs, bread, and potatoes were significantly reduced. More than 5000 people were tested for the risk of developing PD in connection to dietary fatty acid consumption using a food intake questionnaire in a prospective population-based cohort study.

**Correspondence to:** Gaia Rocchitta, Department of Chemistry, University of Sassari, Italy; E-mail: [grocchita@uniss.it](mailto:grocchita@uniss.it)

**Received:** December 08, 2021; **Accepted:** December 22, 2021; **Published:** December 29, 2021

**Citation:** Gaia R (2021) The Influence of Food Habits on the Parkinson's disease. *Nat Prod Chem Res.* 9:423.

**Copyright:** © Gaia R. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited..