



Guideline nutrition in Parkinson's disease

Version for people with Parkinson's disease

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1 General information

This document is a lay version of the Dutch dietary guideline for Parkinson's disease and is intended for patients, partners and informal caregivers. This document describes the main problems related to nutrition. For each problem it is listed what the person with Parkinson's disease can do and what steps the general practitioner, neurologist or Parkinson's nurse will take in treating the problem.

The most common diet related problems are listed below.

1.1 Unintentional weight loss

Many people with Parkinson's disease suffer from weight loss. Weight loss often has several causes, such as reduced appetite, chewing and swallowing problems, difficulty preparing meals, or excess movements (dyskinesias). Weight loss can, among other things, lead to weaker immune systems and longer recovery from illness.

What can you do?

- Weigh yourself once every 3 months and record the weight and date.
 - Always use the same scale;
 - Weigh yourself at the same time of day, preferably in the morning after you have been to the toilet;
 - Weigh yourself without shoes.
- If you lose 5% (average 3-4 kg) in a month or 10% (average 6-8 kg) in 6 months, contact your doctor or Parkinson's nurse.

The treatment

- General nutritional advice:
 - Prepare multiple small meals per day
 - Use extra butter and spread on bread
 - Use full dairy products
 - Eat multiple small meals
- In consultation, the doctor will refer you to the dietitian for further dietary advice.

1.2 Constipation

Constipation can have several causes. As a result of Parkinson's disease, bowel function may be impaired. Constipation may also occur due to insufficient fiber and fluid in the diet and reduced exercise. Constipation can slow down the levodopa's absorption, making it less effective.

What can you do?

- Drink 12-15 glasses of liquid a day
- Make sure your diet contains enough fiber. Dietary fiber is mainly found in vegetables, fruit and wholewheat products.
- Exercise at least half an hour each day.
- Discuss problems of constipation with the doctor or Parkinson's nurse.

The treatment

- The doctor or Parkinson's nurse will advise you on the need to drink sufficiently, use of more fiber in your diet and exercise. If necessary, the doctor will refer you to the dietitian for dietary advice and to the physiotherapist for advice on exercise.
- If the symptoms are not alleviated, the doctor may prescribe medication.
- If the symptoms are serious, the doctor may consider an enema.

1.3 Medication intake and response fluctuations in relation to food

In some people with Parkinson's disease, the effect of levodopa is influenced by the intake of proteins.

Proteins (e.g. in milk products, meat products, cheese, eggs, bread) are absorbed via the same transport system as levodopa. Proteins can compete with levodopa, both in the small intestine and in the brain causing a reduction in the absorption of levodopa.

What can you do?

- Discuss fluctuations in the effect of the medication (response fluctuations) with the neurologist or Parkinson's nurse.
- Advice for taking levodopa (such as Madopar and Sinemet):
 - Take levodopa ½ hour before or at least 1 hour after a meal.
 - Take levodopa with water, fruit juice (not grapefruit juice) or apple sauce. Do not use milk products when taking levodopa.

The treatment

- To better capture fluctuations in response, the Parkinson's doctor or nurse may ask you to write down for three days when the medication is working well and when it is not. Special lists are used for this purpose. On these lists you can also write down at which times you have eaten.
- If the doctor suspects that the response fluctuations are related to your diet, he or she may refer you to the dietitian for advice.
- The dietitian can give advice regarding a diet by limiting the intake of proteins and/or by a better distribution of the proteins throughout the day. After a week the dietitian evaluates if the diet has led to a decrease in the response fluctuations. If the diet is effective, the dietitian may give advice on how to vary the diet.

1.4 Unwanted weight gain

Body weight of people with Parkinson's can increase because of eating more or differently, or by exercising less. Body weight may also increase with the use of dopamine agonists (such as Requip and Sifrol). This medication increases the risk of addiction and that can also be addiction to food (e.g. binge eating).

Furthermore, weight can increase in patients who undergo deep brain stimulation.

What can you do?

- Weigh yourself once every 3 months and record the weight and date.
 - Always use the same scale;

- Weigh at the same time of day, preferably in the morning after you have been to the toilet;
 - Weigh yourself without shoes.
- Discuss unwanted weight increase with the doctor or Parkinson's nurse.

The treatment

- The doctor will refer you to the dietitian for dietary advice and/or to the physiotherapist for advice on exercise.

1.5 Chewing and swallowing problems

Chewing and swallowing problems often only occur in later stages of Parkinson's disease. Chewing and swallowing can become more difficult, resulting in patients eating and drinking less and losing weight. Patients may also choke on food and drink. Food can end up in the airways and lead to pneumonia.

What can you do?

Discuss chewing or swallowing problems with your doctor or Parkinson's nurse.

The treatment

- In case of chewing and swallowing problems, the doctor will refer you to a speech therapist for assessment.
- The speech therapist evaluates and examines the chewing and swallowing problems. He/she then gives advice or a training programme to improve swallowing. This may require an adjustment in the consistency of food to make it soft, grinded or liquid. The dietitian will work with you to see what changes are needed and how you can ensure that your diet contains the needed nutrition.

1.6 Nausea, feeling full after eating, slowed gastric emptying

Slowed gastric emptying often occurs in Parkinson's disease. It causes complaints such as nausea and feeling full after eating.

What can you do?

- Discuss complaints such as nausea, feeling full or loss of appetite with the doctor or Parkinson's nurse.
- If you notice that the effect of taking levodopa occurs late or not at all, this may also indicate delayed gastric emptying and you should discuss this with your doctor or Parkinson's nurse.

The treatment

- General nutritional advice:
 - Eat slowly and chew well;
 - Eat several small meals per day
 - Reduce the amount of fat in food
- The doctor may prescribe medication for slowed gastric emptying

1.7 Role of vitamins and minerals

People are often interested in the use of vitamins and mineral supplements. Usually the use of vitamins and mineral supplements is not needed. However, if you are not eating well (temporarily), it may be necessary to take a multivitamin supplement.

Extra vitamin D is needed if you belong to the target group (see box below).

What can you do?

- Discuss questions about the use of vitamins and mineral supplements with your doctor or Parkinson's nurse.
- Daily intake of vitamin D, if you belong to the target group (see box below).

The treatment

- The doctor or Parkinson's nurse will answer any questions you may have about the use of vitamins and mineral supplements and will refer you to the dietitian for further advice if necessary.
- The doctor may recommend the use of vitamin D if you belong to the target group.

Advice vitamin D

These groups need 10 micrograms of vitamin D extra per day:

- Women between 50 and 70 years old
- Women and men up to 70 years of age with insufficient sunlight exposure and/or darker color.

These groups need 20 micrograms of vitamin D extra per day:

- Men and women over 70 years old

2 Example of a patient weighing table

Weighing

- Always weigh yourself at the same time of day. Preferably in the morning before breakfast and after having been to the toilet.
- Weigh yourself without shoes
- Note the date and weight on the table below.

Date	Body weight	Any remarks

Informative websites

www.parkinsonnet.com