# information

# **NUTRITION AND PARKINSON'S**

Parkinson's is a progressive neurological condition, which is characterised by both motor (movement) and non-motor symptoms.

Adequate nutrition is vital to maintain health. This is particularly important when living with a chronic condition such as Parkinson's. A valuable resource on nutrition and Parkinson's is *Eat Well, Stay Well with Parkinson's Disease (2005).* This is available through Parkinson's associations Australia wide.

Unplanned weight loss is a potential problem associated with Parkinson's and can be due to:

- Anosmia (loss of sense of smell)
- Bradykinesia (slowness of movement)
- Dyskinesia (involuntary movement)
- Dysphagia (changes in swallowing)
- Fatigue
- Fine motor changes
- Medication interactions
- Nausea
- Tremor

#### **Anosmia**

Approximately 90% of people living with Parkinson's will experience a change in sense of smell long before motor symptoms become apparent. A decrease sense of smell will affect the sense of taste and subsequently affect appetite and enjoyment of food. Adding extra spices or flavourings may assist if taste is affected.

## Bradykinesia

Bradykinesia impacts on eating resulting in frequent reduction of meal sizes due to fatigue. Smaller more frequent meals or 'grazing' throughout the day is recommended.

### Dyskinesia

Dyskinesia is a side effect of levodopa and the movements may range from slight to severe. Even though this movement is involuntary it uses up energy in the same way as exercise. Increasing dietary intake will meet the increased kilojoule demand. Dietary supplements may be of benefit. Monitoring the time of dyskinesia in relation to medication time may assist the treating specialist in fine tuning the medication regime.

## Dysphagia

Bradykinesia of swallowing related muscles can lead to a delayed swallow and associated risk of aspiration. (See Information Sheet Swallowing and Parkinson's). Review by a speech pathologist to assess swallowing and the need for a modified diet and liquids is recommended.

## **Fatigue**

Fatigue is a major symptom of Parkinson's and may impact on meal preparation and eating. It is compounded by bradykinesia. Purchasing prepared meals may be beneficial.



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### Fine Motor Changes

Repetitive automatic skills such as chopping, cutting and whisking are frequently affected in Parkinson's. This can impact on meal preparation. The basic hand to mouth action of eating may be affected. Adapted cutlery and implements may be of benefit. Review by an occupational therapist is recommended.

#### **Medication Interactions**

Dietary protein is broken down into amino acids in the intestines. These amino acids must cross the intestinal wall and subsequently the blood brain barrier to access the brain. Levodopa uses the same carrier system. Hence the presence of amino acids from protein may interfere with the absorption of levodopa. This does not affect everyone with Parkinson's. Those who experience fluctuations or are aware of protein interactions may benefit from changing the timing of protein intake to avoid medication times.

Levodopa is absorbed more quickly if it is taken prior to meals regardless of the protein interaction.

#### Nausea

When levodopa is initially introduced it may result in nausea which usually passes as the body adjusts. If nausea is experienced levodopa should be taken with food. Ginger products may assist in the management of nausea.

It is important to avoid anti-nausea medications such as Maxolon® as this medication blocks the uptake of levodopa.

#### **Tremor**

Tremor, which does not occur in all cases of Parkinson's, is usually present at rest and therefore may not impact on eating. It can result in an increased use of kilojoules (energy) which may exceed the daily kilojoules consumed. Increasing kilojoule intake will address the energy requirement caused by tremor. Most people with Parkinson's have a sweet tooth making added kilojoules enjoyable.

In some cases it is difficult to ensure adequate nutrition through oral intake alone. This can be due to all of the issues discussed in addition to swallowing difficulties. Alternative methods of feeding may be suggested. These may include Naso Gastric tube or Percutaneous Endoscopy Gastrostomy (PEG) feeding. This involves insertion of a tube directly through the abdomen to the stomach to enable feeding by the use of specialised liquids. Early discussion and decisions on this topic are recommended.

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