**Idiopathic Parkinson’s disease** (Pd) is a progressive neurological condition which is characterised by motor (movement) and non-motor symptoms.

Dysphagia (eating and swallowing changes) related to Pd varies from slight which may only require conscious attention and minimal intervention to severe which may require alternative feeding methods.

Bradykinesia in Pd (slowness of movement) is associated with all automatic repetitive skills including eating and swallowing. The severity of Pd does not always correlate with the severity of dysphagia.

Swallowing changes may take the form of and result in the following:

- Delayed Swallow
- Coughing
- Aspiration
- Pneumonia
- Sialorrhea
- Xerostomia
- Choking

These swallowing related changes may be embarrassing and challenging for people with Parkinson’s, family members and health professionals.

**Delayed Swallow**

The gradual changes to muscle control in the mouth and throat may result in a difficulty in moving the food (bolus) from the front of the mouth to the back. This combined with a delayed swallow means that the placement of food in the mouth is not in keeping with the swallowing reflex.

When liquids are taken the delayed swallow may be associated with the entry of foreign material into the trachea or lungs (aspiration) and a resulting coughing reflex or in some cases silent aspiration. The body may adjust slowly to this occurrence. However, there is always the risk that aspiration pneumonia may result.

**Coughing**

Coughing may be an early sign that swallow is impaired. Consult your doctor for a referral to a speech pathologist.

**Aspiration**

Aspiration may occur silently hence reoccurring chest infections may be due to impaired swallow and aspiration. A referral to a speech pathologist for a swallowing assessment is recommended.

**Pneumonia**

While Pd is regarded as a non-fatal condition pneumonia is commonly associated with end of life.

**Sialorrhea**

Approximately a litre of saliva is produced daily and this is usually swallowed automatically. However, in Pd the automatic mechanism is disrupted resulting in sialorrhea (drooling). This may be one of the most troublesome symptoms of Pd due to its anti-social nature.

**Xerostomia**

Xerostomia (dry mouth) is a troublesome symptom of Pd but may also occur as a side effect of Pd medications. Xerostomia may result in difficulty with swallowing and may impair communication. It can add to the feeling of anxiety which is frequently experienced in Pd. Xerostomia can lead to increased dental decay and difficulty with dentures. Xerostomia and sialorrhea may occur intermittently.

**Choking**

While choking is uncommon in Pd it is a potential problem.
Strategies for Delayed Swallow and Coughing
Correct posture is vital for safe swallowing. Maintaining a straight back (if possible) combined with a slightly forward head position is the safest option. Do not extend the neck backwards.
Avoid dual tasking such as eating and talking or eating and reading. Conscious attention to the swallow will assist.
Take smaller mouthfuls and swallow each mouthful before taking the next.
Swallowing changes are usually gradual. However, if frequent coughing or spluttering occurs, a review by a speech pathologist is essential. This will determine the need for thickened fluids and modified diet. There are various levels of diet and liquid modifications. In severe swallowing difficulties feeding by alternative means such as Percutaneous Endoscopic Gastrostomy (PEG) may be considered.
Medications may be difficult to swallow due to their size. Pd medications (except for Controlled Release) may be crushed.

Screening for Aspiration
If persistent coughing and chest infections occur, aspiration should be considered. A referral from your doctor to a speech pathologist for investigation is essential. A video-fluoroscopy is a commonly used investigation to monitor swallow.

Management of Pneumonia
Pneumonia in Pd is a potentially fatal complication and requires prompt medical treatment.

Sialorrhea Management Strategies
Consciously swallow saliva before eating or talking. Maintain adequate mouth closure.
A waterproof pillow cover may assist overnight.
Discuss treatment options with your doctor. If simple strategies do not ease sialorrhea a current mode of treatment is Botox injections directly into the salivary glands. Access to this treatment is available through most neurologists.
If saliva is thick, the use of pawpaw extract may be of benefit. One theory is that thick saliva is the body’s safety mechanism against aspiration of saliva.

Xerostomia Management Strategies
Sip or spray the mouth frequently with water. Avoid mouthwashes and toothpaste containing alcohol as these will worsen xerostomia. The use of lemon drops or sugarless gum will temporarily increase saliva production.
Frequent dental reviews will prevent increased dental decay.

Management of Choking
As first aid management of choking changes frequently maintaining up-to-date knowledge is recommended. Prevention is better than cure with appropriate diet and liquid modifications.
Any swallowing difficulties should be discussed with your neurologist as serious problems may be avoided with prompt interventions.