



DUODOPA is an advanced therapy intended for Parkinson's patients who suffer from severe, fluctuating symptoms that are no longer treatable with oral medications.

What is DUODOPA?

DUODOPA is a gel mixture of levodopa and carbidopa. With the assistance of an automatic pump, small amounts of DUODOPA are administered throughout the day.

If you spend a significant amount of your waking day with off symptoms and dyskinesia despite optimization of your Parkinson's medications, you may benefit from DUODOPA.

DUODOPA is supplied by AbbVie: http://www.abbvie.ca/

Off symptoms: Symptoms that occur when low on dopamine. Tremor, rigidity, and slowness are common off symptoms.



Image provided by AbbVie Corporation.

The DUODOPA system:

- **A**) The pump.
- **B**) The medication cassette.
- C) The external PEG tube, leading from the pump to the stomach.
- **D**) The internal J tube, leading from the PEG tube to the small intestine.

How does DUODOPA work?

An automatic pump continuously administers small amounts of DUODOPA gel into the small intestine throughout the day. The gel travels through a PEG-J tube, bypassing the stomach to go directly to where it is best absorbed. As a result, levodopa levels in the body are kept at a constant level.

DUODOPA replaces most or all of your oral Parkinson's medications. A customized dose of DUODOPA is calculated based on the medications that you are currently on.

PEG-J: "Percutaneous Endoscopic Gastrostomy Jejunal" tube. A combo of two tubes that passes through the abdominal wall, past the stomach, and into the small intestine.



Why use DUODOPA?

The symptoms of Parkinson's disease become harder to manage over time for two reasons:

- Parkinson's medications take longer to exit the stomach. Parkinson's disease slows down the muscles that control the passage of food and medications through the gut. Levodopa is primarily absorbed in the small intestine, and it is ineffective until it passes through the stomach. Consequently, patients on oral levodopa may find that symptom control becomes more erratic as the disease develops.
- The brain's tolerance for dopamine changes decreases.

 Patients may notice dyskinesia after taking a dose of levodopa.

 Although the exact mechanism behind dyskinesia is unknown, it is thought to occur as a response to high levels (or changing levels) of dopamine in the brain. As Parkinson's advances, dyskinesia becomes more apparent and longer lasting.

Dyskinesia: Involuntary writhing or wiggling movements. This differs from the repetitive, rhythmic movements of a Parkinsonian tremor.

Eventually, timing and dose adjustments of oral medications may not be enough to control the fluctuating motor symptoms of Parkinson's. When that happens, DUODOPA may be considered as an option.

The Daily Routine of DUODOPA:

- 1) After waking up, the pump is connected to the tube and turned on. A button is pressed to deliver a morning dose to get into ideal levodopa range.
- 2) The pump runs automatically throughout the day, delivering gel in regular, frequent intervals to stay in ideal levodopa range. A button can be pressed to deliver extra doses of levodopa if required.
- 3) Before going to sleep, the pump is disconnected and turned off. The tube is flushed with tap water to clear it of residual gel.
- 4) During showers or baths, the area where the PEG-J enters the stomach is cleaned with soap and water, and monitored for any signs of infection.

How much does DUODOPA cost?

In Alberta, the cost for DUODOPA is covered by private insurance or through a grant provided by Alberta Health. AbbVie will work with you to ensure adequate coverage prior to starting treatment.





What are the side effects?

Side effects of DUODOPA:

- Dizziness and/or light-headedness
- Decreased appetite
- Dyskinesia
- Cold, burning, prickling, or tingling sensations
- Hallucinations
- Depression and/or anxiety

Common issues related to the PEG-J insertion procedure:

- Pain and bloating in the stomach post-procedure
- Redness and swelling
- Scar tissue
- Infection
- Leakage of stomach fluid

Issues that can occur with the PEG-J tube over time:

- The tube may move out of place, going into the stomach.
- The tube may get blocked or knotted.

Who should I contact if I want to learn more?

Leave a voice mail at the Movement Disorders Program nursing line: **403-944-4364**. A nurse will contact you to provide more information and answer any questions you may have.

Authored by Eric Tse, RN Movement Disorders Program, FMC, Calgary, AB The side effect profile of DUODOPA is similar to that of oral levodopa.