The Levodopa Challenge

This leaflet provides information about the levodopa challenge and what you can expect when you come to hospital. If you have any further questions, please contact your Parkinson’s nurse specialist.

What is a levodopa challenge?
The levodopa challenge is a way of testing for responsiveness to the drug levodopa, which is used in the treatment of Parkinson’s disease. The test involves completing an assessment of your movement, rigidity, balance and walking during your ‘off’ phase (without medication) and your ‘on’ phase (with medication). It uses a measurement tool called the Unified Parkinson’s Disease Rating Scale (UPDRS) to assess the effect of the drug.

Why should I have a levodopa challenge?
The levodopa challenge is part of the assessment to consider your suitability for deep brain stimulation (DBS) to treat your Parkinson’s disease. It looks at how well your symptoms respond to levodopa. Having a good response to levodopa is important when considering how much DBS will benefit your Parkinson’s symptoms.

How can I prepare for a levodopa challenge?
The Parkinson’s nurse specialist will speak with you about temporarily stopping your Parkinson’s medication prior to the day of your challenge. Details relating to which medications you need to stop and when you need to stop taking them will depend on which Parkinson’s medications you take. Please follow your nurse’s instructions carefully.

As a guide:

- If you take levodopa (Sinemet®, Madopar®, Stalevo® or Duodopa®) and a dopamine agonist (ropinirole, pramipexole or rotigotine), you will be advised to temporarily stop taking these on the morning of your assessment (at least six hours prior to your appointment).
- If you are using an apomorphine pump, it can be switched off one hour before the challenge.
- Other medications, such as amantadine, entacapone, selegiline and rasagiline should not be taken on the morning of your assessment.

If you think you may find it difficult to stop taking your medications, please discuss this further with the Parkinson’s nurse specialist. You should continue taking any non-Parkinson’s medications that you usually take.

On the morning of the test, please eat no more than a light breakfast – this is to assist with the absorption of the medication.
Are there any risks?
Temporarily stopping your Parkinson’s disease treatment will lead to a short return of your symptoms (slowness, rigidity and tremor). However, you will be assessed promptly so that the amount of time spent off medication is limited. There are no long-term risks associated with the levodopa challenge.

Asking for your consent
It is important that you feel involved in decisions surrounding your care. You will be asked to formally agree to the levodopa challenge. You can withdraw your agreement at any time, even if you have said ‘yes’ previously. If you would like more details about our consent process, please ask your nurse specialist.

Please note that your assessment will be video-recorded and this recording will form a part of your clinical record. We will ask for your written consent before doing this.

What happens during a levodopa challenge?
The Parkinson’s nurse will first assess you during your ‘off’ phase (without medication). This will involve a series of movements and an assessment of your rigidity, walking and balance. We understand that some of the assessment may be difficult for you without your Parkinson’s medication(s) however this is a key aspect of the assessment. This first stage of the assessment will take no longer than 20 minutes.

After the first assessment, you will be given dispersible (soluble) Madopar®, otherwise known as co-beneldopa. Sinemet® (also known as co-careldopa) can be given as an alternative if you have had problems with Madopar® in the past. It may take up to an hour for the medication to work. Once the medication is working and you appear to be in your ‘on’ phase, the assessment will be repeated. The dose that will be given will be discussed with you at the appointment.

You will be asked to complete a number of written questionnaires during the assessment. The nurse specialist or neurologist will discuss this with you and will assist you with these on the day.

What happens with my Parkinson’s medication after the levodopa challenge?
Please bring your Parkinson’s medication with you to restart following your assessment. For a short period of time after the assessment, you may experience more Parkinson's disease symptoms (slowness, rigidity, and tremor), however these should settle within 24 hours.

Will I have a follow-up appointment?
The results of the assessment will be outlined with you on the day and then as a team we will discuss your case at the next multidisciplinary meeting. You will then be contacted by a member
of the team to discuss the outcome of the assessments or invited to the DBS clinic for further discussion opportunities.

You will continue to be seen by your usual neurologist and Parkinson’s nurse specialist.

**Contact us**
If you have any questions or concerns about the levodopa challenge, please contact the nurse specialist on 020 8725 4677 (9am to 5pm, Monday to Friday). You can also call the Parkinson’s UK helpline on **0808 800 0303**.

For more information leaflets on conditions, procedures, treatments and services offered at our hospitals, please visit [www.stgeorges.nhs.uk](http://www.stgeorges.nhs.uk)

---

**Additional services**

**Patient Advice and Liaison Service (PALS)**
PALS can offer you on-the-spot advice and information when you have comments or concerns about our services or the care you have received. You can visit the PALS office between 9.30am and 4.30pm, Monday to Friday in the main corridor between Grosvenor and Lanesborough wings (near the lift foyer).  
**Tel:** 020 8725 2453  **Email:** pals@stgeorges.nhs.uk

**NHS Choices**
NHS Choices provides online information and guidance on all aspects of health and healthcare, to help you make decisions about your health.  
**Web:** [www.nhs.uk](http://www.nhs.uk)

**NHS 111**
You can call 111 when you need medical help fast but it’s not a 999 emergency. NHS 111 is available 24 hours a day, 365 days a year. Calls are free from landlines and mobile phones.  
**Tel:** 111

**AccessAble**
You can download accessibility guides for all of our services by searching ‘St George’s Hospital’ on the AccessAble website (www.accessable.co.uk). The guides are designed to ensure everyone – including those with accessibility needs – can access our hospital and community sites with confidence.