

# Reward mechanisms, mood and motivational symptoms in Parkinson's disease: an experimental approach.

Gepubliceerd: 05-11-2007 Laatst bijgewerkt: 18-08-2022

This study tests the hypothesis that reward mechanisms in PD are dysfunctional and that this dysfunction is correlated with an increased severity of symptoms of apathy, depression and HDD.

<b>Ethische beoordeling</b>	Niet van toepassing
<b>Status</b>	Werving gestart
<b>Type aandoening</b>	-
<b>Onderzoekstype</b>	Interventie onderzoek

## Samenvatting

### ID

NL-OMON27566

### Bron

NTR

### Verkorte titel

N/A

### Aandoening

Parkinson's disease

(NLD: De ziekte van Parkinson).

### Ondersteuning

**Primaire sponsor:** Maastricht University

**Overige ondersteuning:** Maastricht University

### Onderzoeksproduct en/of interventie

## **Uitkomstmaten**

### **Primaire uitkomstmaten**

Main study parameters are the performance on neuropsychiatric and neuropsychological tests for both groups, including assessments of cognitive status, mood, apathy, and an observation of spontaneous self-reward behaviour.

## **Toelichting onderzoek**

### **Achtergrond van het onderzoek**

In Parkinson's disease (PD) degeneration of dopaminergic cells in the mesocorticolimbic pathway is implied in the pathophysiology of several non-motor symptoms related to motivation and reward, such as apathy, depression, and hedonistic homeostatic dysregulation (HDD), a syndrome that is characterized by obsessive behaviour, addiction, compulsive seeking of dopamine replacement therapy (DRT), and hypersexuality. Apathy is reported in 16 to 42 % of PD patients, while depression occurs in 25 to 40 %. Both apathy and depression have a serious negative impact on everyday functioning, cognitive and motor performance and quality of life for both patient and partner or caretaker. HDD, although less prevalent (around 4% of patients), can also be severely disruptive. Insight in the pathophysiology of these syndromes may pave the way for rational treatments and improved outcomes.

### **Doel van het onderzoek**

This study tests the hypothesis that reward mechanisms in PD are dysfunctional and that this dysfunction is correlated with an increased severity of symptoms of apathy, depression and HDD.

### **Onderzoeksopzet**

These outcome measures will be rated on three different testing days, before and after the administration of methylphenidate, pramipexole or placebo.

### **Onderzoeksproduct en/of interventie**

All subjects receive a 10 mg methylphenidate challenge, a 500 µg pramipexole challenge and a placebo condition.

# Contactpersonen

## Publiek

Brain & Behaviour Institute  
Maastricht University, DOT 12  
Postbus 616

R.L. Drijgers  
Maastricht 6200 MD  
The Netherlands  
043-3881839

## Wetenschappelijk

Brain & Behaviour Institute  
Maastricht University, DOT 12  
Postbus 616

R.L. Drijgers  
Maastricht 6200 MD  
The Netherlands  
043-3881839

## Deelname eisen

### Belangrijkste voorwaarden om deel te mogen nemen (Inclusiecriteria)

1. Idopathic Parkinson's disease;
2. Informed consent.

### Belangrijkste redenen om niet deel te kunnen nemen (Exclusiecriteria)

1. Other concurrent neurological diseases than PD;
2. Concurrent psychiatric disease;
3. Use of psychopharmacological medication;

4. Abuse of alcohol and drugs;
5. Cognitive deterioration as operationalized by a score of <23 on the MMSE;
6. Use of levodopa preparations or dopamine agonists.

## Onderzoeksopzet

### Opzet

Type:	Interventie onderzoek
Onderzoeksmodel:	Cross-over
Toewijzing:	Gerandomiseerd
Blinding:	Dubbelblind
Controle:	Placebo

### Deelname

Nederland	
Status:	Werving gestart
(Verwachte) startdatum:	01-12-2007
Aantal proefpersonen:	50
Type:	Verwachte startdatum

## Ethische beoordeling

Niet van toepassing	
Soort:	Niet van toepassing

## Registraties

### Opgevolgd door onderstaande (mogelijk meer actuele) registratie

Geen registraties gevonden.

## **Andere (mogelijk minder actuele) registraties in dit register**

Geen registraties gevonden.

## **In overige registers**

<b>Register</b>	<b>ID</b>
NTR-new	NL1082
NTR-old	NTR1115
Ander register	: MEC 07-3-087
ISRCTN	ISRCTN wordt niet meer aangevraagd

## **Resultaten**

### **Samenvatting resultaten**

N/A