

# KNGF Guideline

# Parkinson's disease

## Diagnostic process

### Quick reference card 1: History-taking

<b>Patient's demand and motivation</b>		
<b>Nature and course of the disease</b>	onset of complaints; time since the diagnosis; severity and nature of the course; result of earlier diagnostics	
<b>Participation problems</b>	problems with relationships; profession and work; social life (among others, recreational time)	
<b>Impairments in functions and limitations in activities</b>	transfers	sit down; rise from floor or chair; get in or out bed; roll over in bed (sleeping problems); get in or out a car; get on or off a bike
	body posture	possibility of an active correction of posture; pain due to postural problems; problems with reaching, grasping, and moving objects
	balance	feeling of impaired balance while standing and during activities; orthostatic hypotension; difficulty with dual tasking (motor activity, cognitive)
	reaching and grasping	household activities (small repairs, clean, cook, slice food, hold a glass or cup without spilling); personal care (bath, get dressed/undressed, button up, lace up shoes)
	gait	use of aids; walk in the house; climb the stairs, walk short distances outside (100 m); walk long distances outside (> 1 km); start; stop; turn; speed; onset of festination; onset of freezing (use the Freezing of Gait Questionnaire); relation to falls and the use of cues
	influence of tiredness, the time of the day and medication on the performance of activities; influence of tremor on the performance of activities	
<b>Physical activity</b>	frequency and duration per week compared to the Dutch Standard of Healthy Moving (at least 30 min/day for 5 days a week); when having doubts: use the LASA physical activity questionnaire (LAPAQ)	
<b>Risk to fall</b>	fall incidents and near fall incidents (use the questionnaire History of Falling); fear to fall; if patients had near misses the past year: use the Falls Efficacy Scale (FES)	
<b>Co-morbidity</b>	Pressure sores; osteoporosis and mobility-limiting disorders such as arthrosis, rheumatoid arthritis, heart failure and COPD	
<b>Treatment</b>	current treatment (among others, medication and outcome) and earlier (allied) medical treatment type and outcome	
<b>Other factors</b>	mental factors	ability to concentrate; memory; depression; feeling isolated and lonely; being tearful; anger; concern for the future
	personal factors	insight into the disease; socio-cultural background; attitude (among others, with regard to work); coping (among others, the perception of the limitations and possibilities, the patient's solutions with regard to the limitations)
	external factors	Attitudes, support and relations (of, among others, partner, primary care physician, employer); accommodation (among others, interior, kind of home); work (content, circumstances, conditions, and relations)
<b>Expectations</b>	expectations of the patient with regard to prognosis; goal and course of the treatment; treatment outcome; need for information, advice and coaching	

### Quick reference card 2: Physical examination

	Physical capacity	Transfers	Body posture/ reaching and grasping	Balance	Gait
<b>Physical examination</b>	<p><b>Expressing itself in reduced:</b></p> <p><b>Mobility of joints</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> thoracic spinal column</li> <li><input type="checkbox"/> cervical spinal column</li> <li><input type="checkbox"/> other joints, namely: .....</li> </ul> <p><b>Muscle length</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> calf muscles</li> <li><input type="checkbox"/> hamstrings</li> <li><input type="checkbox"/> other muscles, namely: .....</li> </ul> <p><b>Muscle strength</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> trunk extensors</li> <li><input type="checkbox"/> knee extensors</li> <li><input type="checkbox"/> knee flexors</li> <li><input type="checkbox"/> plantar flexors of the ankle</li> <li><input type="checkbox"/> other muscles, namely: .....</li> </ul> <ul style="list-style-type: none"> <li><input type="checkbox"/> control of respiration</li> <li><input type="checkbox"/> physical condition</li> </ul>	<p><b>Problems with:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> sitting down (chair)</li> <li><input type="checkbox"/> rising from a chair</li> <li><input type="checkbox"/> rising from the floor</li> <li><input type="checkbox"/> getting in and out of bed</li> <li><input type="checkbox"/> rolling over in bed</li> <li><input type="checkbox"/> getting in or out a car</li> </ul>	<p><b>Expressing itself in:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> generalized flexion while sitting</li> <li><input type="checkbox"/> generalized flexion while standing</li> <li><input type="checkbox"/> generalized flexion while walking</li> <li><input type="checkbox"/> generalized flexion while lying</li> <li><input type="checkbox"/> no possibility of active correction of posture</li> <li><input type="checkbox"/> pain (especially in neck, back)</li> </ul> <p><b>Problems with:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> reaching</li> <li><input type="checkbox"/> grasping</li> <li><input type="checkbox"/> moving objects</li> </ul>	<p><b>During:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> standing (eyes open / closed)</li> <li><input type="checkbox"/> rising from a chair</li> <li><input type="checkbox"/> turning while standing</li> <li><input type="checkbox"/> walking</li> <li><input type="checkbox"/> bending forward</li> <li><input type="checkbox"/> dual tasking: 2 x motor activities</li> <li><input type="checkbox"/> dual tasking: cognitive + motor activity</li> <li><input type="checkbox"/> freezing</li> <li><input type="checkbox"/> reaching and grasping</li> </ul> <p><b>Possibly expressing itself in:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> falls</li> </ul>	<p><b>Expressing itself in:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> problems with starting</li> <li><input type="checkbox"/> problems with stopping</li> <li><input type="checkbox"/> shortened stride length</li> <li><input type="checkbox"/> increased stride width</li> <li><input type="checkbox"/> decreased stride width</li> <li><input type="checkbox"/> decreased speed</li> <li><input type="checkbox"/> decreased trunk rotation</li> <li><input type="checkbox"/> decreased arm swing</li> <li><input type="checkbox"/> freezing</li> <li><input type="checkbox"/> festination</li> </ul> <p><b>Freezing can be provoked:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> by starting to walk</li> <li><input type="checkbox"/> during walking</li> </ul> <p><b>Cause:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> dual tasking: cognitive + motor activity</li> <li><input type="checkbox"/> doorway</li> <li><input type="checkbox"/> obstacles (e.g. chairs)</li> <li><input type="checkbox"/> other, namely: .....</li> </ul>

### Measures for identification and evaluation

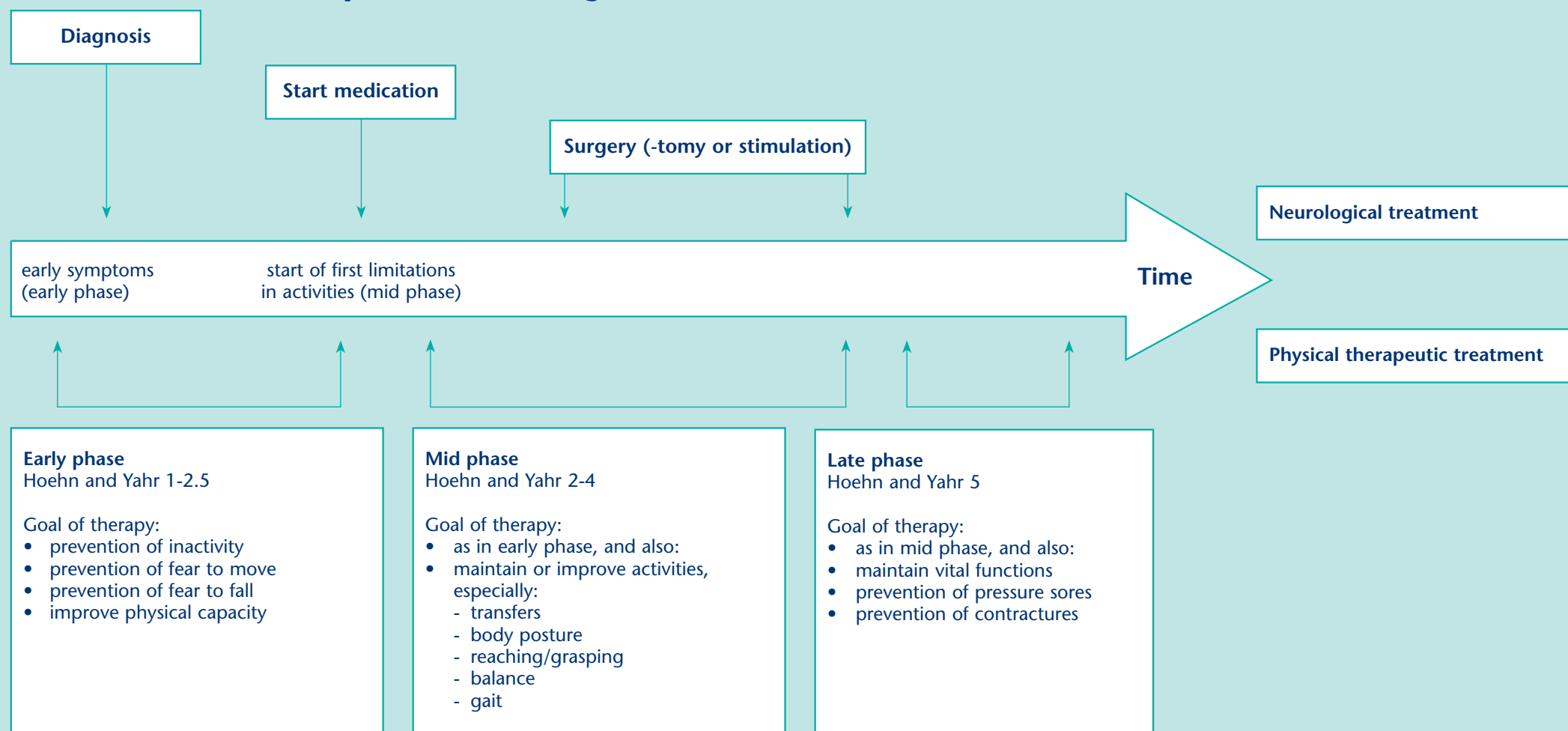
- Patient Specific Complaints
- Global perceived effect

### Supplementing measures for identification

- |  |  |   |   |   |
|--|--|---|---|---|
| <ul style="list-style-type: none"> <li><input type="checkbox"/> LASA Physical Activity Questionnaire</li> <li><input type="checkbox"/> Six-minute walk test</li> </ul> | <ul style="list-style-type: none"> <li><input type="checkbox"/> Parkinson Activity Scale</li> <li><input type="checkbox"/> Timed Up and Go test</li> </ul> | <p>No specific measuring instrument advised</p> | <ul style="list-style-type: none"> <li><input type="checkbox"/> Timed Up and Go test</li> <li><input type="checkbox"/> Retropulsion test</li> <li><input type="checkbox"/> Falls Efficacy Scale</li> <li><input type="checkbox"/> Falls diary</li> <li><input type="checkbox"/> Questionnaire History of Falling</li> </ul> | <ul style="list-style-type: none"> <li><input type="checkbox"/> Parkinson Activity Scale</li> <li><input type="checkbox"/> Timed Up and Go test</li> <li><input type="checkbox"/> Freezing of Gait questionnaire</li> <li><input type="checkbox"/> Ten-meter walk test</li> </ul> |
|--|--|---|---|---|

## Therapeutic process

### Quick reference card 3: Specific treatment goals



### Quick reference card 4: Treatment strategies

Stimulation of activities		
	Goal	Strategy
<b>Transfers</b>	Perform transfers (more) independently	Practice transfers by using cognitive movement strategies and <i>on/off</i> cues for movement initiation
<b>Body posture</b>	Conscious normalization of body posture	Practice relaxed and coordinated moving; providing feedback and advice
<b>Reaching and grasping</b>	Improve reaching and grasping, and manipulating and moving objects	Practice reaching and grasping by using cues and cognitive movement strategies
<b>Balance</b>	Improve balance during activities	Practice balance, train muscle strength (see prevention of falls)
<b>Gait</b>	Improve walking (independently); the objective is to increase the (comfortable) walking speed; however, safety comes first	Practice walking by using cues for initiation and continuation of walking, give instruction and train muscle strength and trunk mobility
Prevention		
	Goal	Strategy
<b>Inactivity</b>	Preserve or improve physical condition	Provide information on the importance of moving and playing sports, training of physical capacity: muscle strength (with the emphasis on trunk and leg muscles); aerobic capacity; and joint mobility (among others thoracic kyphosis, axial rotation, and length of muscles of calf and hamstrings)
<b>Pressure sores</b>	Prevention of pressure sores	Give advice and adjust the patient's body posture in bed or wheelchair (possibly in consultation with an occupational therapist); (supervised) active exercises to improve cardiovascular condition and prevention of contractures
<b>Falls</b>	Decrease or prevent falls	List possible causes of falls by means of falls diary; provide information and advice; train strength, body posture, coordination and balance, attuned to the cause of problems with maintaining balance and the increased falls risk; decrease the fear to fall, (if necessary) provide hip protectors