

---

**FACTSHEETS FOR HEALTHCARE PROFESSIONALS:**  
**Physiotherapy Outcome Measures in Huntington Disease**

Currently there is no treatment or cure for Huntington disease (HD), a fatal disease. The goal of physiotherapy is to maintain functions and slow down deterioration. Assessments can help to evaluate the impact of physiotherapy interventions on patients with HD by measuring changes in their level of participation, functional abilities or impairments.

Consider using some of the following standardized tests to measure the success of your physiotherapy treatments, based on the goals you and your patient have set.

**Limitations in participation**

*The Short Form-36*

This patient questionnaire measures quality of life and level of participation. The 26 questions are grouped into 8 sub-scales.

**Limitations in functional activities**

*Six-Minute Walk Test*

Have the person with HD walk around the perimeter of a set circuit for a total of six minutes. Assistive devices can be used. Measure the distance covered in six minutes.

*Ten-Metre Walk*

Mark off a 14-metre area: 10 metres for the walk itself and 2 metres on either side to give the person space to start and stop. Ask the person to walk the 10-metre distance at a comfortable speed, using assistive devices if necessary. Record the time required to cover the distance, as well as the number of steps. Calculate the average speed (metres/minute) and cadence (steps/minute).

*Timed Up and Go (TUG) Test*

Have the person with HD stand up from a chair, walk three metres, turn around and then return to the chair. Assistive devices can be used. Time how long it takes the person to complete the test.

*Physical Performance Test (PPT)*

In this standardized test, subjects are timed as they perform nine different tasks that measure basic and complex activities of daily living.

*Rivermead Mobility Index*

This short and simple outcome measure consists of 14 questions and 1 observation. Items are scored as either 0 (unable to complete) or 1 (able to complete).

*Barthel Index*

This is a 10-category rating scale that evaluates the level of assistance needed to perform the following tasks: feeding, bathing, grooming, dressing, bowels, bladder, toilet use, transfer, mobility and stairs.

*Activities of Balance Confidence Scale*

This questionnaire is designed to measure a person's confidence in performing a variety of tasks without becoming unstable or losing balance.

*UHDRS Functional Scale*

This rating system quantifies the severity of HD. It was developed as a clinical rating scale to assess four domains of clinical performance and capacity in individuals with HD: motor function, cognitive function, behavioural abnormalities and functional capacity. It may be useful for tracking

changes in the clinical features of HD over time.

#### *Number of Falls*

Have the person keep a diary recording all falls and slips over a given period of time.

#### **Measures of impairment**

##### *UHDRS Motor*

The motor section of the UHDRS Functional Scale mentioned above may not be specific or sensitive enough to measure changes related to physiotherapy intervention, but this has not been systematically evaluated.

##### *Berg Balance Scale*

This scale consists of 14 sub-tests of activities related to balance control, including static postures, transitions and challenging positions. Quality of performance is scored on a five-point scale.

##### *Tinetti Balance and Gait*

This two-part evaluation measures performance on various balance tasks and provides a qualitative ranking of various gait deviations.

##### *Dynamic Gait Index*

This test evaluates a person's ability to modify gait in response to changing task demands. It can be used for ambulatory people with balance impairments.

#### **For more information**

- *Assessing Physiotherapy Needs in Huntington Disease* (an HSC factsheet)
- *Physiotherapy Interventions for Huntington Disease* (an HSC factsheet)

Adapted from: *European Huntington's Disease Network Physiotherapy Guidance Notes*, EHDN Physiotherapy Working Group, July 2008

<http://www.euro-hd.net/html/network/groups/physio/physiotherapy-guidance-doc-2009.pdf>