

# Playful gaming in neuro psychological rehabilitation after stroke

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Determine the potential impact of a set of cognitive games in people with cognitive difficulties after stroke.

<b>Ethical review</b>	Approved WMO
<b>Status</b>	Recruitment stopped
<b>Health condition type</b>	Other condition
<b>Study type</b>	Interventional

## Summary

### ID

NL-OMON37155

### Source

ToetsingOnline

### Brief title

Playful

### Condition

- Other condition
- Vascular haemorrhagic disorders

### Synonym

brain hemorrhage, brain infarction

### Health condition

CVA

### Research involving

Human

## Sponsors and support

**Primary sponsor:** De Haagse Hogeschool

**Source(s) of monetary or material Support:** Revalidatiefonds

## Intervention

**Keyword:** cognitive training, games, rehabilitation, stroke

## Outcome measures

### Primary outcome

Outcome measures

1. score on games
2. score on validated cognition tests and questionnaires
3. result on a functional, everyday (cognitive) task.

### Secondary outcome

self perceived cognitive difficulties

self efficacy

QOL

cognitive problems experienced by partner/caregiver

## Study description

### Background summary

Every year 41,000 people in Netherlands are diagnosed with stroke. Functional cognitive limitations in attention, (working) memory, speed of information processing, executive functions, social communication and emotional control are common, often chronic effects. Cognitive rehabilitation is focused on improving cognitive skills and daily functioning through training, learning new

strategies, use of compensatory mechanisms and/or learning to accept and deal with the permanent consequences of the brain injury.

A good cognitive game keeps the attention and motivation longer focused by a visually rich and varied environment, gives direct feedback and is adaptive (tempo, dosage, level), encouraging more intensive and prolonged exercise . Gaming facilitates training in the home environment with the advantage of self-management: control over when, where, how long, what and with whom to practice.

## **Study objective**

Determine the potential impact of a set of cognitive games in people with cognitive difficulties after stroke.

## **Study design**

Randomised Clinical Trial (RCT) in which the effect of an intervention, utilizing commercially available computer games, is compared with the provision of information, which is not aimed at improving the cognitive function in patients who have had a stroke.

## **Intervention**

A website, designed for this project, gives the participant through a login code access to a set of games. The intervention consists of gaming: the cognitive games serve 8 weeks long, 5 days per week, approx. 15-20 minutes per day.

## **Study burden and risks**

pre-post measurements-follow-up (8 weeks after intervention) each 1 hour: 3 hours (+ travel time)

information meeting 45 min

intervention 8 weeks x 5 days x approx 15-20 min

partner/caregiver: pre-post-follow up (8 weeks after intervention) measurements each 10 min: 30 min

## **Contacts**

### **Public**

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## **Trial sites**

### **Listed location countries**

Netherlands

## **Eligibility criteria**

### **Age**

Adults (18-64 years)

Elderly (65 years and older)

### **Inclusion criteria**

stroke, 12-36 months after onset; 45-74 years;  
comprehension, reading and speaking Dutch language;  
in possession of a computer with internet connection and experience with use of internet and e-mail.  
Motor skills to operate arrows keys and mouse. Visual perceptual skills to monitor and process stimuli.

### **Exclusion criteria**

Extreme hypersensitivity to visual stimuli, epilepsy, depression.

## **Study design**

## Design

Study type:	Interventional
Intervention model:	Crossover
Allocation:	Randomized controlled trial
Masking:	Open (masking not used)

**Primary purpose:** Treatment

## Recruitment

NL	
Recruitment status:	Recruitment stopped
Start date (anticipated):	01-11-2012
Enrollment:	120
Type:	Actual

## Ethics review

Approved WMO	
Date:	16-10-2012
Application type:	First submission
Review commission:	METC Leiden-Den Haag-Delft (Leiden)
	metc-ldd@lumc.nl

## Study registrations

### Followed up by the following (possibly more current) registration

No registrations found.

### Other (possibly less up-to-date) registrations in this register

No registrations found.

**In other registers**

Register	ID
CCMO	NL41003.058.12