

# The effects of a cognition enhancer (CILTEP) on a cognitive test battery and EEG in middle-aged and old volunteers

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To examine the effects of a treatment that consists of different natural ingredients on cognitive performance in two different age groups. These effects will be compared with placebo treatment.

<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-OMON47611

### Source

ToetsingOnline

### Brief title

CILTEP and cognition

### Condition

- Other condition

### Synonym

nvt

### Health condition

geen aandoening

### Research involving

Human

## Sponsors and support

**Primary sponsor:** Universiteit Maastricht

**Source(s) of monetary or material Support:** Ministerie van OC&W, Natural Stacks, Natural Stacks (16192 Coastal Highway, Lewes, DE 19958, Verenigde Staten)

## Intervention

**Keyword:** Cognition, EEG, PDE 4-inhibitors

## Outcome measures

### Primary outcome

The primary outcome measure is the number of recalled words in a verbal word learning task, and the score on a spatial memory task which measures how efficiently subjects can separate a representation of a picture from a similar, but different, picture.

### Secondary outcome

The following secondary measures will be examined in this study:

- \* The number of words memorized long-term in a verbal learning task.
- \* The number of correct responses in a working memory task.
- \* The performance on the Digit symbol substitution task to assess complex scanning.
- \* The speed of responding in combination with correct responses in a psychomotor task.
- \* The performance on a trail making test which measures mental flexibility and attention.
- \* The performance on the Stroop to measure attention and inhibition.
- \* EEG measurement during the above mentioned behavioral tasks and during a

sensory gating task, which look at the efficiency of the brain in filtering out unnecessary information.

## Study description

### Background summary

There is still a great need to find treatments that can improve cognitive function in people that suffer from memory and attention problems. There are various natural ingredients that have been claimed to improve cognitive functions in humans, such as PDE 4-inhibitors. In this study, a PDE 4-inhibitor will be combined with an ingredient that can enhance this PDE 4-inhibition, together with other natural ingredients which have potential to improve cognition as well. It is hypothesized that this combination of these natural ingredients may be more effective to improve cognitive performance than PDE 4-inhibition alone.

### Study objective

To examine the effects of a treatment that consists of different natural ingredients on cognitive performance in two different age groups. These effects will be compared with placebo treatment.

### Study design

This study will use a double blind placebo controlled crossover design.

### Intervention

Participants will be tested two times. During each test session, they will receive one capsule (CILTEP or placebo).

### Study burden and risks

The subjects who will be included in the study will visit the testing site three to four times (medical screening + practice session including memory screening, and two test sessions). Each testing session will last 2.5 h and the medical screening, training and memory screening maximum 3 h. In total the subjects will spend about 8 h when they participate. During the two test sessions the subjects will receive a capsule th

at contains a placebo, or a combination of different natural ingredients. These treatments are well tolerated. No adverse reactions of treatment are expected. The subjects have to abstain from drinking coffee and alcohol. Two blood samples will be taken on each test day.

## Contacts

### Public

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### Scientific

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## Trial sites

### Listed location countries

Netherlands

## Eligibility criteria

### Age

Adults (18-64 years)

Elderly (65 years and older)

### Inclusion criteria

30-40 or 60-75 years of age

Healthy

Normal static binocular acuity (corrected or uncorrected)

Body mass index between 18.5-30

Score op de Woord-Leertaak die binnen 1 standaarddeviatie van het gemiddelde valt

Willingness to sign informed consent

## Exclusion criteria

having a history of cardiac, hepatic, renal, pulmonary, neurological, gastrointestinal, haematological or psychiatric illness, having a first-degree relative with a psychiatric disorder or a history with a psychiatric disorder, excessive drinking (>20 glasses of alcohol containing beverages a week), pregnancy or lactation, use of psychoactive medication, centrally acting beta blockers, use of recreational drugs from 2 weeks before until the end of the experiment, systolic blood pressure above 160 mmHg, phenylketonuria, any sensory or motor deficits which could reasonably be expected to affect test performance, and use of steroids or Sudafed (pseudoephedrine).

## Study design

### Design

Study type:	Interventional
Intervention model:	Crossover
Masking:	Double blinded (masking used)
Control:	Uncontrolled
Primary purpose:	Other

### Recruitment

NL	
Recruitment status:	Recruitment stopped
Start date (anticipated):	03-07-2017
Enrollment:	120
Type:	Actual

## Ethics review

Approved WMO	
Date:	01-06-2017
Application type:	First submission

Review commission: METC academisch ziekenhuis Maastricht/Universiteit  
Maastricht, METC azM/UM (Maastricht)

## Study registrations

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

No registrations found.

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

ID: 21957

Source: Nationaal Trial Register

Title:

### In other registers

Register	ID
CCMO	NL60999.068.17
OMON	NL-OMON21957

## Study results

Date completed: 30-11-2018

Actual enrolment: 91