

# The development of a measuring method for the temporal processing of the hearing system.

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The development of an electrophysiological measuring method to describe the temporal processing of the hearing system, using the auditory steady state response.

<b>Ethical review</b>	Approved WMO
<b>Status</b>	Pending
<b>Health condition type</b>	Hearing disorders
<b>Study type</b>	Observational non invasive

## Summary

### ID

NL-OMON36323

### Source

ToetsingOnline

### Brief title

Measuring method for the temporal processing

### Condition

- Hearing disorders

### Synonym

Auditory processing

### Research involving

Human

## Sponsors and support

**Primary sponsor:** Erasmus MC, Universitair Medisch Centrum Rotterdam

**Source(s) of monetary or material Support:** Ministerie van OC&W

## Intervention

**Keyword:** ASSR, Auditory processing

## Outcome measures

### Primary outcome

De primary study parameters of this study are the detection thresholds of the ASSR-test and the relation between the modulation depth of the stimulus and the amplitude of the response. Beside, the outcome will be compared with a psychophysics amplitude modulation test.

De belangrijkste uitkomsten van deze studie zijn de detectiedrempels van de ASSR-test en de relatie tussen de modulatie diepte van de stimulus en de amplitude van de respons. Daarnaast zullen de uitkomsten worden vergeleken met een psychofysische amplitude-modulatie test.

### Secondary outcome

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## Study description

### Background summary

Good hearing and understanding is very important in normal daily life. A good auditory processing is important to make optimal use of it. Auditory processing disorders can with current diagnostic tests only be tested psychophysically. In these tests the co-operation of the patients is needed. For some purposes a test is needed where the co-operation of patients isn't required. This study investigates a measuring method in which active co-operation of the patient isn't required to describe the temporal processing of sounds. This will be done with use of electrophysiological measured responses, the auditory steady state response (ASSR).

## Study objective

The development of an electrophysiological measuring method to describe the temporal processing of the hearing system, using the auditory steady state response.

## Study design

The research design is a pilot-study.

## Study burden and risks

There are no corporal risks associated with participation. Performing all tests take maximal two hours per person.

## Contacts

### Public

Erasmus MC, Universitair Medisch Centrum Rotterdam

's Gravendijkwal 230  
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NL

### 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

Supposed normal hearing  
Gender: mixed  
Age: > 18 years and < 40 years

## Exclusion criteria

Air conduction thresholds at 0,5/1/2/4 kHz > 20 dB  
At the moment of the measurement troubles or doubts on the hearing

## Study design

### Design

**Study type:** Observational non invasive  
**Masking:** Open (masking not used)  
**Control:** Uncontrolled  
**Primary purpose:** Diagnostic

### Recruitment

NL  
**Recruitment status:** Pending  
**Start date (anticipated):** 01-06-2010  
**Enrollment:** 15  
**Type:** Anticipated

## Ethics review

Approved WMO  
**Date:** 12-01-2012  
**Application type:** First submission  
**Review commission:** METC Erasmus MC, Universitair Medisch Centrum Rotterdam

(Rotterdam)

## 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	NL32404.078.10