# Feasibility of the Dutch version of the AB-York Crescent of Sound; a new apparatus for assessing spatial hearing skills in the Dutch population

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This study aims to asess the feasibility of the Dutch version of the AB-York Crescent of Sound in normal hearing adults and unilaterally implanted adult CI patients.

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| **Ethical review** | Approved WMO |
| **Status** | Recruitment stopped |
| **Health condition type** | Hearing disorders |
| **Study type** | Observational non invasive |

## Summary

### ID

NL-OMON37881

**Source**
ToetsingOnline

**Brief title**
FeasCoS2012

### Condition

- Hearing disorders

**Synonym**
deafness, sensory hearing loss

**Research involving**
Human

### Sponsors and support

**Primary sponsor:** Universitair Medisch Centrum Utrecht
**Source(s) of monetary or material Support:** Ministerie van OC&W

## Intervention

**Keyword:** Cochlear Implant users, Normal hearing subjects, Spatial hearing, Speech intelligibility in noise

## Outcome measures

### Primary outcome

Speech intelligibility in noise (signal noise ratio in dB (SNR)).

### Secondary outcome

Spatial hearing (sound localisation)

# Study description

### Background summary

Normal-hearing listeners gain important benefits from having two ears. Users of a Cochlear Implant (CI) achieve high levels of spoken word recognition when speech is presented in quiet. However, they experience difficulty in the presence of competing sounds and are poor at identifying where sounds come from. At the moment, there is a lack of material to adequately test spatial hearing and speech intelligibility in noise in CI users.
Recently, a new apparatus has been developed by a research group from the University of York. This apparatus is called the 'AB-York Crescent of Sound'.
To make the apparatus applicable for the Dutch population of cochlear implant users, the test material has been replaced by Dutch sentences

### Study objective

This study aims to asess the feasibility of the Dutch version of the AB-York Crescent of Sound in normal hearing adults and unilaterally implanted adult CI patients.

### Study design

This is a cross-sectional study that intends to gather and analyze audiometric

data obtained with a new apparatus for measuring speech in noise and spatial hearing capabilities. All participants will be tested with the new audiometric test set up once.

**Study burden and risks**

Participation in this study will take some time, but it does not carry any risks.

# Contacts

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# Trial sites

## Listed location countries

Netherlands

# Eligibility criteria

**Age**
Adults (18-64 years)
Elderly (65 years and older)

## Inclusion criteria

Normal hearing subjects:

1. Age >= 18 and <= 70 years.
2. Normal hearing as defined by;
a. Pure tone audiometry threshold <= 15dB HL at octave frequencies from 500-4000 Hz.
b. Speech intelligibility threshold >= 95% at 50dB SPL
3. Dutch language proficiency.
4. Willingness and ability to participate in all scheduled procedures outlined in the protocol.
5. Written informed consent;Cochlear implantees:;1. Age >= 18 and <= 70 years.
2. Postlingual onset of hearing loss, defined as: the patient attended mainstream education.
3. At least 1 year of hearing experience with the cochlear implant.
4. Dutch language proficiency.
5. Willingness and ability to participate in all scheduled procedures outlined in the protocol.
6. Written informed consent

### Exclusion criteria

1. Disability which could interfere with the completion of the tests.

## Study design

### Design

| | |
|---|---|
| Study type: | Observational non invasive |
| Intervention model: | Other |
| Allocation: | Non-randomized controlled trial |
| Masking: | Open (masking not used) |
| Control: | Active |
| Primary purpose: | Diagnostic |

### Recruitment

NL

| | |
|---|---|
| Recruitment status: | Recruitment stopped |
| Start date (anticipated): | 12-04-2012 |
| Enrollment: | 40 |
| Type: | Actual |

# Ethics review

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| Approved WMO Date: | 11-04-2012 |
| Application type: | First submission |
| Review commission: | METC Universitair Medisch Centrum Utrecht (Utrecht) |

# 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 | NL39472.041.12 |

# Study results

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| Date completed: | 26-03-2013 |
| Actual enrolment: | 37 |

**Summary results**
Trial is onging in other countries