

# Study of the effectiveness of Auditory integration therapy in the treatment of auditory hypersensitivity in autism spectrum disorders

<b>Submission date</b> 24/12/2009	<b>Recruitment status</b> No longer recruiting	<input type="checkbox"/> Prospectively registered
<b>Registration date</b> 31/08/2010	<b>Overall study status</b> Completed	<input type="checkbox"/> Protocol
<b>Last Edited</b> 31/08/2010	<b>Condition category</b> Mental and Behavioural Disorders	<input type="checkbox"/> Statistical analysis plan
		<input type="checkbox"/> Results
		<input type="checkbox"/> Individual participant data
		<input type="checkbox"/> Record updated in last year

## Plain English summary of protocol

Not provided at time of registration

## Contact information

### Type(s)

Scientific

### Contact name

Prof Laila AL-Ayadhi

### Contact details

Auditory Integration Therapy Project (AIT)  
Professor of Neurophysiology  
Consultant Diagnostic Neurophysiology  
Autism Research and Treatment Centre (ART Centre) (99)  
Department of physiology (29)  
Faculty of Medicine  
King Saud University  
P O Box 2925  
Riyadh  
Saudi Arabia  
11461

## Additional identifiers

## Study information

**Scientific Title**

The effectiveness of Auditory integration therapy in the treatment of auditory hypersensitivity in autism spectrum disorders: A single blind randomised controlled trial study

**Acronym**

AIT Autism

**Study objectives**

Auditory integration therapy is effective in reducing the auditory hypersensitivity in autistic children

**Ethics approval required**

Old ethics approval format

**Ethics approval(s)**

The College of Medicine and King Khalid University Ethics Committee approved on the 27th of December 2009. (ref: E-09-065)

**Study design**

Single centre randomised controlled interventional study

**Primary study design**

Interventional

**Study type(s)**

Treatment

**Health condition(s) or problem(s) studied**

Autism spectrum disorders

**Interventions**

The children will be assessed as follows:

1. Physician (to confirm the diagnosis) using
  - 1.1. The Developmental, Dimensional and Diagnostic interview (3DI)
  - 1.2. Childhood Autism Rating Scale (CARS)
2. Parents and Psychologist will fill the following
  - 2.1. Health questionnaire
  - 2.2. ORCA Diagnostic check list
  - 2.3. Autism Treatment Evaluation Checklist (ATEC)
3. ENT specialist

Children with a history of seizure disorder will be excluded.

Written informed consent will be obtained from the parents/guardian.

During the study period, children were not allowed to begin any new therapies or stop any current therapies, including medications and supplements.

Auditory integration training will be conducted according to the following protocol:

The listener receives 18 to 20 listening sessions lasting for 30 minutes, over a 10- to 20-day period. In most cases, with a 1- or 2-day break after 5 days of listening. During the listening sessions, the child listens to processed music. That is, the AIT sound amplifier attenuates low and high frequencies at random from the compact discs, and then sends this modified music through headphones to the listener. This random selection of frequencies is termed

'modulation.' The intensity level (volume) during the AIT listening sessions should not exceed 85 decibels (dBA).

**Intervention Type**

Other

**Phase**

Not Applicable

**Primary outcome(s)**

Reflection in sensory hypersensitivity, assessed at baseline, 3, 6 and 9 months.

**Key secondary outcome(s)**

1. Increased attention
2. Better hearing
3. Increased concentration

Outcomes assessed at baseline, 3, 6 and 9 months, using the following tools:

1. Parent Questionnaire
2. Health Questionnaire
3. ORCA diagnostic checklist
4. CARS
5. ATEC

**Completion date**

01/01/2012

**Eligibility****Key inclusion criteria**

Autism spectrum disorders with auditory sensory hypersensitivity

**Participant type(s)**

Patient

**Healthy volunteers allowed**

No

**Age group**

Child

**Sex**

All

**Key exclusion criteria**

1. Epilepsy
2. Cerebral palsy
3. Tuberous sclerosis

**Date of first enrolment**

01/01/2010

**Date of final enrolment**

01/01/2012

## Locations

**Countries of recruitment**

Saudi Arabia

**Study participating centre**

**Auditory Integration Therapy Project (AIT)**

Riyadh

Saudi Arabia

11461

## Sponsor information

**Organisation**

King Abdul Aziz City for Science and Technology (KACST) (Saudi Arabia)

**ROR**

<https://ror.org/05tdz6m39>

## Funder(s)

**Funder type**

Research organisation

**Funder Name**

King Abdul Aziz City for Science and Technology (KACST) (Saudi Arabia)

## Results and Publications

**Individual participant data (IPD) sharing plan****IPD sharing plan summary**

Not provided at time of registration