

## Johansen Individualised Auditory Stimulation

Johansen Individualised Auditory Stimulation (JIAS) is one form of Sound Therapy or Auditory Integration Therapy. It has been developed in Denmark by Dr. Kjeld Johansen, Director of the Baltic Dyslexia Research Laboratory from original work by Christian A. Volf. The programme involves listening to a series of specially recorded music either on a CD or through the app, for 10 to 15 minutes per day, for a period of six to fifteen months, depending on the age of the listener. The music can be listened to at any time of the day, through over the ear headphones.



The music, developed in Denmark by Bent Peder Holbech of Rotna Music, is pleasant and easy to listen to and can be customised to the specific needs of the individual. Individualised music is created using Sensograph's computer technology and software. The music is designed to stimulate the nerve pathways into and within the brain - in particular the areas dealing with language - and thus improve language processing abilities.

Concentration, listening and understanding of language are all enhanced as a result of this, as incoming information is dealt with more quickly and efficiently. This can also lead to improvements in reading and spelling, as the ability to analyse the sound structure of words is strengthened.

JIAS is known as Hemisphere Specific Auditory Stimulation (HSAS) in the USA and Auditory Discrimination Therapy (ADT) in Scandinavia. Other forms of Sound Therapy include The Listening Programme, The Tomatis Method, AIT (Auditory Integration Training) and Samonas Sound Therapy.

## Who can benefit from Johansen Individualised Auditory Stimulation?

JIAS can be of benefit to children, adolescents and adults with a variety of speech and/or language difficulties, both spoken and written (including specific learning difficulties and dyslexia).

These include difficulties with the following:

- Speech Sounds (pronouncing speech sounds correctly)
- Receptive Language (understanding of language)
- Expressive Language (speaking)
- Auditory Processing
- Written Language (including dyslexia)
- Reading/ Spelling
- Speech/ Phonological awareness (awareness of speech sounds)
- Dyspraxia
- Autistic Spectrum Disorders
- Understanding and remembering information and instructions
- Concentration
- Self confidence and self esteem
- Behaviour - when it may be due to poor communication skills
- Hypersensitivity to loud or particular sounds / noises

Children from as young as three years old can successfully follow the programme, as can adults; although for older individuals the programme may take longer to complete.

**Young children** –JIAS helps individuals to hear sounds more accurately and efficiently. For young children with speech that is difficult to understand, JIAS can enhance their ability to improve the accuracy of their speech sound production and works very well alongside any speech and language therapy input they may be receiving. Children who have difficulty in understanding what is said to them, or in expressing themselves effectively can also benefit greatly.



**School age children and young people-** JIAS improves auditory processing efficiency. Children and young people who find it difficult to follow instructions, do not seem to listen to what is being said to them, or need extra time to respond to a question, may have a problem with auditory processing. JIAS can improve these underlying difficulties which may be part of the cause of their difficulty with understanding. This may include those with spoken language difficulties, including specific language impairment (SLI), dyspraxia, ADHD or dyslexia.

JIAS can also be very helpful for individuals with expressive language difficulties, speech sound difficulties and for those with Autism. People who struggle with reading and spelling find it easier to analyse the sound structure of words following listening to JIAS music. Together with good, targeted teaching this can help their literacy skills significantly.



**Adults** – JIAS has not been used with adults as widely as with children. However, those who have been through the programme have reported improvements with processing incoming auditory information, as well as with their reading and spelling.



***JIAS is not a magical answer to all problems.*** It is important that individuals are assessed prior to starting on the programme to ensure that Sound Therapy is an appropriate approach for their particular difficulties. For a small minority of children with language difficulties JIAS may not work, and will not gain some benefit from it, although there are very few in our experience. For the vast majority, who through assessment are identified as being likely to be helped, it can make a very great difference.

**It is always important that a fully qualified Johansen IAS practitioner delivers and monitors the implementation of the programme.**

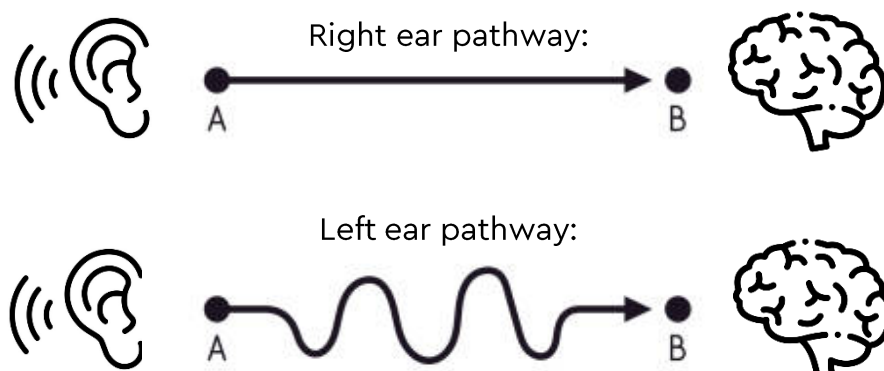
## Background Information on Auditory Processing Difficulties

Auditory processing difficulties can affect development of speech, language and communication, as well as reading and spelling, which can result in problems with talking and understanding, and/or dyslexia or specific learning difficulties. Children may inherit a language processing problem, and may also develop hearing habits which are inefficient for language intake. This may be a result of repeated bouts of hearing loss or reduced hearing levels in one or both ears in early childhood, due, for example, to 'glue ear' or regular ear infections. However, there are also many children for whom there is no obvious reason for their difficulty. While we are still a long way from understanding the cause of many speech and language problems, we are more able to understand the underlying difficulties that a child with these problems may be having.

Many children with language difficulties have problems with the **processing of language**. Their ability to take in, organise, store, retrieve, add to existing information and express what they want to say as and when required, is weak. This problem may manifest itself most noticeably in spoken language, in understanding what is being said or in reading and writing.

This may in turn affect learning at school in various ways and as such can have serious consequences for the child. Researchers believe that this deficit in language processing may be intricately connected with the way in which children perceive sounds.

The language centres are situated predominantly in the left hemisphere of the brain for nearly all right-handed individuals, as well as for the majority of those who are left-handed. Therefore, the quickest and most efficient pathway for language information to reach the processing area in the left hemisphere is predominantly via the right ear. The left ear provides a supporting role. This means that inconsistent or left ear preference use slower and less efficient pathways, which can adversely affect the learning of language and its organisation within the brain.



As a result, sounds within words, words themselves or even whole sentences may be jumbled or in the wrong sequence. This in turn may affect the understanding and production of both speech and writing. Where language is poorly organised, a child will have to work hard to unravel what is said to them and may be unable to sustain the level of concentration required to do so, thus affecting learning.



JIAS, which involves listening to specially recorded music via the app or on CD for 10-15 minutes per day, has been found to benefit those individuals who have auditory processing difficulties as described above. This is because JIAS music stimulates and strengthens the more efficient pathways, which in turn can help improve their spoken and/or written language.



For more information, visit:  
[www.johansenias.com](http://www.johansenias.com)



## Instructions for Johansen Individualised Auditory Stimulation (JIAS)

It is important to follow these steps as carefully as possible in order to get the maximum benefit from this programme. Music can be listened to on the Sonorias app or a CD player.

**1. If using a CD, choose a good quality CD player** that will transmit the required frequencies i.e. approximately 40-50 Hz to at least 16,000 Hz. Generally speaking, the simpler the machine (with the fewest additional features) the better the quality within the same price bracket. Ideally find a machine that is a CD player only, rather than combined with a radio or MP3 player. The music should not be downloaded to an MP3 player as MP3 players are not suitable for JIAS.

**2. Use over-the-ear headphones.** It is extremely important to ensure that the right earphone is over the right ear, as the input to each ear is not identical. It may help to put a red sticker on the right earphone and remember red goes on the right. See recommended headphone models below.

**3.** If your CD player or headphones have a balance control between the left and the right channel, this must be set at NEUTRAL (0 or in the middle). Built in equalisers should be in the neutral position for all frequencies and extra bass should be switched off.

**4. "Waves" CDs** consist of one track of 10 minutes. Listen to this once each day.

**5. "Ondulations" CDs** consist of 5 or 6 tracks of 10 or 15 minutes. Listen to track 1 on day 1, track 2 on day 2 etc. Having listened to all the tracks, start again with track 1.

**6. Listen to the music every day** unless you are unwell. It is the regular and consistent stimulation to the brain that is important in this treatment.

**7. Do not eat, read, write, watch television, chat or participate in an active games** while listening to the music. It is recommended to listen to the music first thing in the morning or last thing at night, though it does not matter what time of day you choose.

**8. Relax for 5 minutes** after the music has stopped, if you listen earlier in the day.

**9. Listen to the music at a comfortable volume** for 10 minutes each day. Relax while listening.

**10. Do not listen to any other music** through headphones for the duration of your JIAS programme. Doing so may undo some or all of the benefits of the programme. Similarly, do not listen to any music too loudly during this time.

**11. Do not try to copy the music.** The CDs have been recorded using specialist equipment and are individually customised. Using a copied CD may be detrimental to someone for whom it has not been made and is likely to distort the sound.

**12. Look after the CDs.** If they are damaged, they may be rendered useless.



Recommended  
headphone models:  
[www.sonorias.com/supp  
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sonorias](http://www.sonorias.com/supported-headphones-for-sonorias)