Auditory Hypersensitivity and Autism Spectrum Disorders: A Treatable Condition

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Auditory Hypersensitivity is Perceptual

Three Definitions

Abnormally sensitive hearing in which tolerable sounds are perceived as excessively loud

An increased sensitivity to sound perception, subjective in nature
Aversion to certain sounds
Leo Kanner 1943

Hearing

Perception

"tap, tap, tap"

Auditory Processing
Six Integrated Systems
- Auditory
- Cognitive Decision Making
- Memory
- Emotional
- Language
- Sensory Regulation

- **Think**-cognitive
- **Remember**-memory & emotional
- **Fight or Flight**-sensory regulation (ANS)

Maladaptive Responses

Classical Auditory Pathway
1. Outer ear
2. Middle ear
3. Inner ear

Non-Classical Auditory Pathway
1. Limbic System
2. Cerebellum
Evaluation

68%-76% of children identified as ASD *could* tolerate loud sounds

Lucker, Gomes and colleagues

Treatment

1. Desensitization training
2. Listening methods

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**Desensitize** the limbic system

**Reprogram** emotional memory

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Specialized music improves brain function

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Sound brain fitness for the sensory sensitive listener.
Brendan @ 23 months
Loves his listening!

Results
• Calm
• Comfortable
• Attentive
• Communicative
• Continent
• Socially Engaged
• Happy!

TLP trains the classical and non-classical auditory pathways

15 - 30 minutes
5 days a week

Makes sound something one desires rather than avoids
Auditory Hypersensitivity is treatable

Auditory Hypersensitivity and Autism Spectrum Disorders: An Emotional Response
Jay R. Lucker, EDD, CCC-A/SLP, FAAA and Alex Doman

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