

A microscopic image of neurons, showing several cell bodies with long, thin, branching processes extending outwards. The neurons are stained in shades of blue and purple, with some brownish spots on the cell bodies. The background is a light, pale blue.

Auditory Plasticity – Beyond the Ear

Source: Auditory plasticity: What is it, and why do clinicians need to know? *The Hearing Journal*, Frank E. Musiek, PhD. April 2011

Talking Points Continued



Nature Reviews Neuroscience 11, 599-605 (August 2010) |
doi:10.1038/nrn2882

Science and Society

Music training for the development of auditory skills

Nina Kraus & Bharath Chandrasekaran

**International Journal
of Therapy and
Rehabilitation**

International Journal of Therapy and Rehabilitation
January 2015, Vol 22, No 1

**The effectiveness of auditory stimulation in children with
autism spectrum disorders: A case-control study**

Bryan M. Gee, Et al.

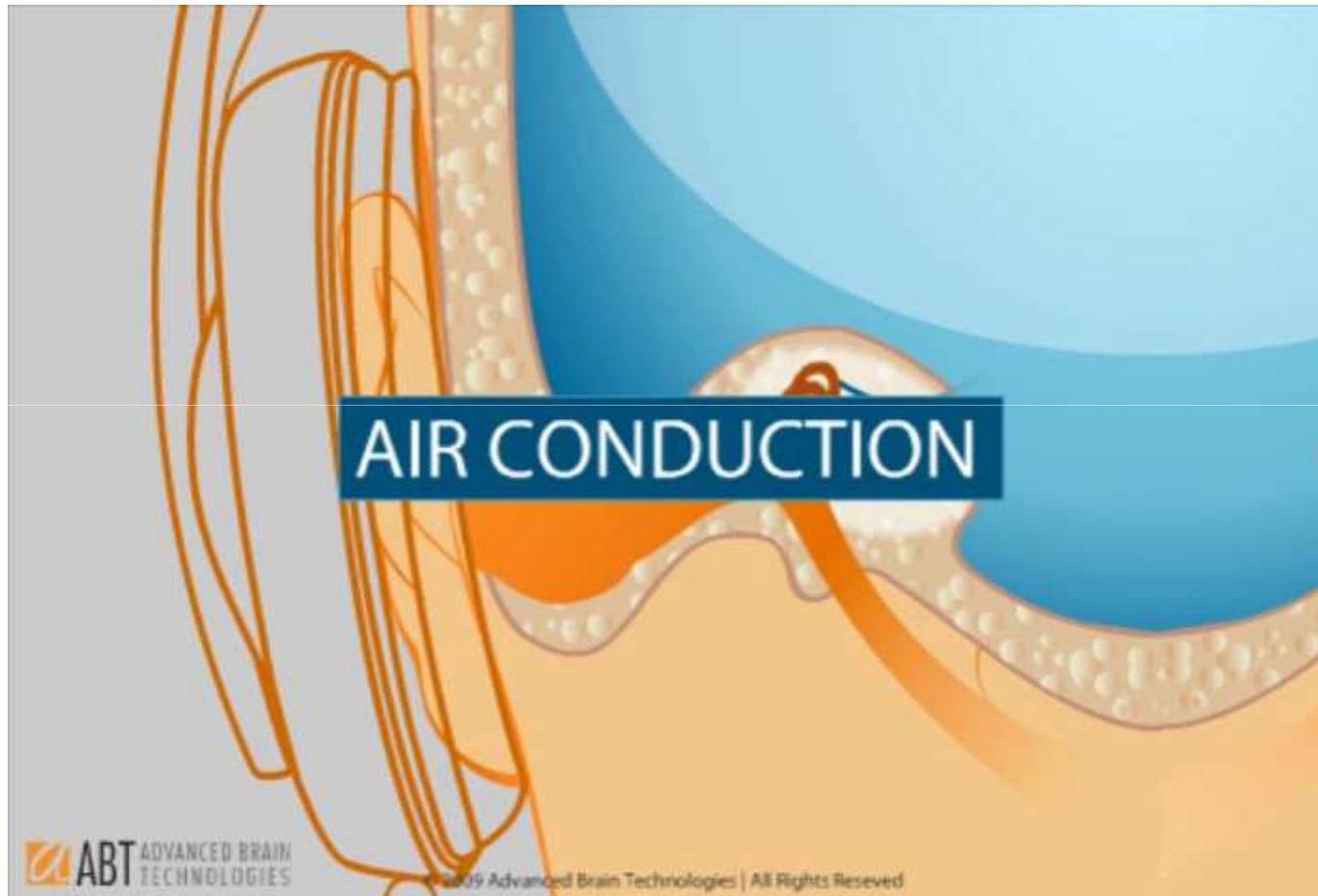


SPECTRUM

Foundational brain
training for
management and
reduction of sensory
sensitivities.



Bone Conduction



waves

The multi-sensory audio system
optimized for The Listening
Program and inTime.



Nicoló



- 8 year old
- Trisomy 18 Mosaicism
- Protocol: TLP SPECTRUM w/
Waves multisensory audio system
- 2X daily (morning & afternoon) 15
min each
- Concurrent with other therapies;
hyperbaric oxygen, hippotherapy,
and bioenergy work

Nicoló

Results within first four weeks

- Suddenly seemed more aware of his environment
- More inquisitive and more observing
- Asking lots of Why's? about things
- “Somehow I felt TLP had triggered something in his brain”

Nicoló

Results after 2 months

- Improved sustained attention
- Less distractible
- Improved communication (initiating)
- Improved morphosyntactic production, more structured sentences, use of adverbs, and past tense verbs
- Reduced dysfluency
- Global motor skill improvement and coordination
- Improved postural control, for longer periods

OTI

OCCUPATIONAL
THERAPY
INTERNATIONAL

Occupational Therapy International, 16 (1). 25-43.

A case study of a five-year-old child with pervasive developmental disorder-not otherwise specified using sound based interventions.

Amy J Nwora, Bryan M Gee

“Following intervention, John no longer demonstrated poor posture, atypical drive for touch, messy handwriting or difficulty with organization/structure.... John no longer demonstrated low frustration tolerance, difficulty making judgments, and generalizing to new situations, lack of tactfulness or inability to tolerate stress.”

-Nwora and Gee

“A case study of a five-year-old child with PDD-NOS using sound-based interventions”

Occupational Therapy International, volume 16, issue 1

OTI

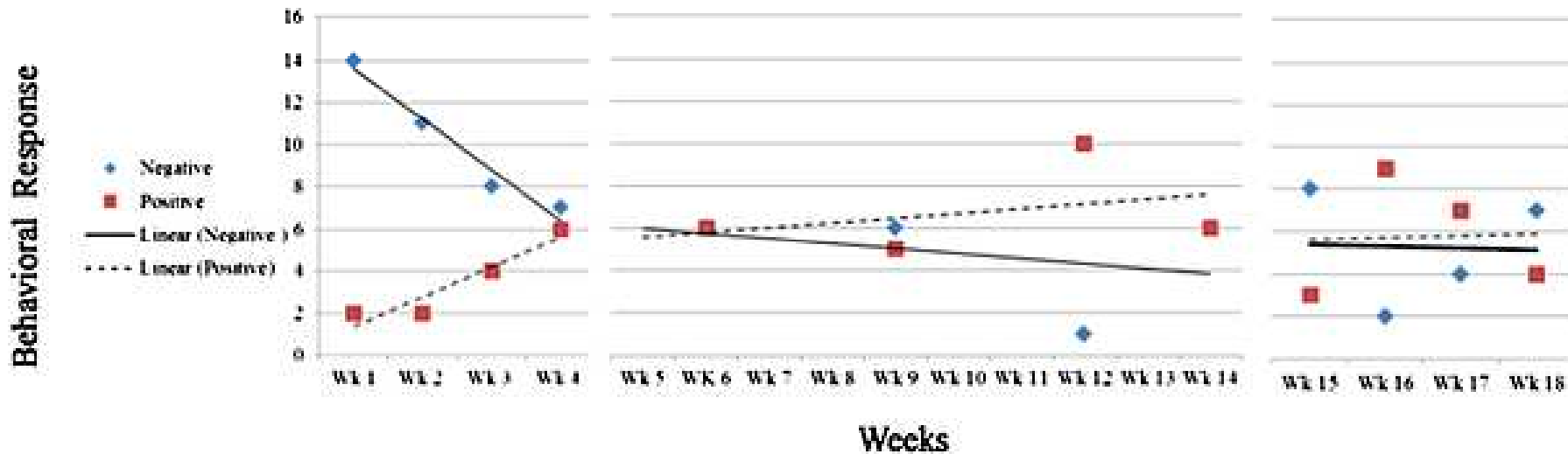
OCCUPATIONAL
THERAPY
INTERNATIONAL

Occupational Therapy International, 21(1). 12-20.

**Efficacy of a Sound-based Intervention with a Child with
and Autism Spectrum Disorder and Auditory Sensory
Over-responsivity**

Bryan M. Gee, Kelly Thompson, Kelly St. John

Efficacy of a Sound-based Intervention with a Child with an Autism Spectrum Disorder and Auditory Sensory Over-responsivity





“I like to do my listening because the music is so pretty and it helps me not be so anxious. It helps me relax and keep calm.”

- Max

Age 8 Autism



European Society for Paediatric Urology (ESPU) Congress
Turkey April 2010

A pilot investigation into the effects of listening to modified classical music, including bone conduction, in improving toilet training outcomes for children with learning difficulties.

June Rogers MBE

MUSIC AND MEDICINE
AN INTERDISCIPLINARY JOURNAL

Music and Medicine

October 2010, Vol. 2 no. 4 208-213

**Evaluation of The Listening Program in Assessing
Auditory Processing and Speech Skills in Children with
Down Syndrome**

Gwenyth Jeyes, Caroline Newton