



Vestibular Stimulation refers to motion-stimulation of the vestibular system in the inner ear. This important sensory system provides significant input into the brain, which is used to process motor activity, postural control, and balance.

At TWC, the rotation of the Theta Chamber provides vestibular stimulation during treatment. This stimulation synergistically combines with the other concurrent treatment modalities to make significant neurological changes in the client.

Numerous studies have shown vestibular stimulation to affect brain development, integration and intelligence. Behavior modification has also been shown. The following are a sampling of the effects reported in literature:

- Developmentally delayed children displayed significant advances in speech development after vestibular stimulation treatment.¹
- A meta-analysis of 14 studies using vestibular stimulation revealed that subjects receiving vestibular stimulation performed significantly better than members of control or comparison groups who did not receive such stimulation.²
- Children exposed to vestibular stimulation showed significant motor and reflex changes³ and significant improvement in gross motor skills.⁴
- Vestibular stimulation made impressive improvements in behavior of children diagnosed with ADHD. Improvement persisted through follow up one year later.⁵

¹ Magrun M et. al. **Effects of vestibular stimulation on spontaneous use of verbal language in developmentally delayed children.** American Journal of Occupational Therapy, 2: 101-104. (1981).

² Ottenbacher KJ. **The Efficacy of Vestibular Stimulation as a Form of Specific Sensory Enrichment.** Quantitative Review of the Literature. Pediatrics, Vol. 23, No. 8: 428-433 (1984)

³ MacLean WE and Baumeister AA. **Effects of vestibular stimulation on motor development and stereotyped behavior of developmentally delayed children.** Journal of Abnormal Child Psychology Vol. 10, No. 2: 229-245 (1982)

⁴ Clark DL et. al. **Vestibular stimulation influence on motor development in infants.** Science 10 June 1977: Vol. 196. no. 4295: 1228 – 1229

⁵ Arnold LE et. al. **Vestibular and visual rotational stimulation as treatment for attention deficit and hyperactivity.** *American Journal of Occupational Therapy*, 39, 84–91. (1985)