Title: World Congress of Neurology
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Neurology of the Posture System, the Structure and Function Connection

Abstract

Statement of the Problem: Sedentary individuals with flexor dominant posture and technology over utilization are at a greater risk for developing Digital Dementia. Posture is declining at the speed of technology. Poor posture is a modern day epidemic that is affecting our society in a way that we have never seen before. Advancements in technology combined with a sedentary society and poor posture habits while engaging with technology has changed the course of evolution. "Tech Neck" demonstrates postural decline from a musculoskeletal perspective, and "Digital Dementia" demonstrates the decline in brain function associated with poor posture and the over utilization of technology. Patients presenting with Digital Dementia demonstrate common symptoms associated with dementia and physiologic changes in their brain. These patients present with sensory disassociations impacting the frontal lobe and creating developmental disorders characterized by lack of motivation and empathy, and difficulty in acquisition of skills associated with traditional forms of learning. Motor skills are compromised from physiologic changes of the motor cortex, sensory cortex, and vestibular system. Methodology and Theoretic Orientation: The purpose of this presentation is to introduce the concept of Digital Dementia and to demonstrate meaningful methodology of patient care implementation for health care professionals to utilize with their patients. Participants will gain useful strategies of Postural Neurology that are relevant to the needs of modern day patients. This presentation will demonstrate brain based posture analysis and correction techniques. Conclusion and Significance: Sedentary individuals with flexor dominant posture can improve neurologic function with proper postural habits while engaging in technology utilization. Recommendations are made for brain based postural correction strategies.

Image

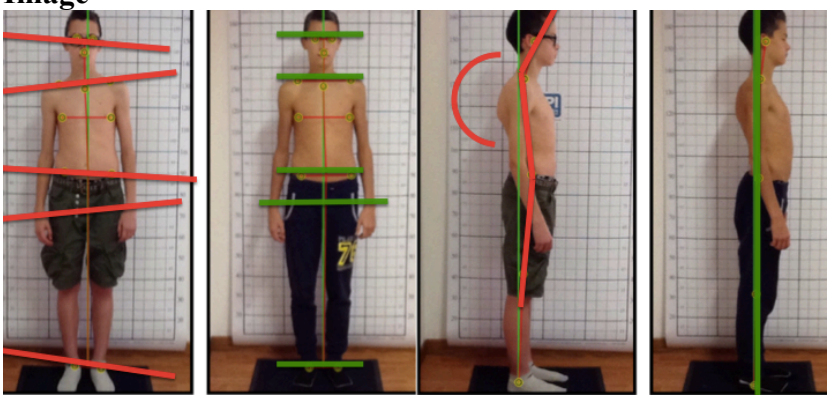


Figure 1: Example of flexor dominant posture pre and post intervention. Images with the red lines demonstrate the patient before the intervention, and images with the green lines demonstrate the patient's posture post intervention.

Recent Publications

1. Apkarian, A. et al. (2004) Chronic back pain is associated with decreased prefrontal and thalamic gray matter density. *Journal of Neuroscience* 24(46).
2. Cottman, C. et al. (2002) Exercise Enhances and Protects Brain Function. *Exercise and Sport Sciences Reviews*, 30(2) p. 75-79.
3. Creath, R. (2002) Limited control strategies with the loss of vestibular function. *Exp Brain Res,* 145 p. 323–333.

4. Dolan KJ, et al. (2006) Lumbar spine reposition sense: the effect of a ‘slouched' posture. *Man Ther*, 11(3) p. 202-7.
5. Dossey, L. FOMO, Digital Dementia, and Our Dangerous Experiment. *Explorations*, 10(2) p. 69-73.
6. Thibault, R. et al. (2014) Posture alters human resting-state. *Cortex, Science Direct*, 58 p. 199-205.
7. Lin, F. et al. (2012) Abnormal White Matter Integrity in Adolescents with Internet Addiction Disorder: A Tract-Based Spatial Statistics Study. *Plos One.*
8. Schilling, D. et al (2003) Classroom seating for children with attention deficit hyperactivity disorder: therapy balls versus chairs. *Journal of Occupational Therapy*, 57(5) 534-541
9. Schilling, D. & Schwartz, I. (2004). Alternative seating for young children with autism spectrum disorder: effects on classroom behavior. *Journal of Autism and Developmental Disorders* 34(4) 423-432.

Biography



Dr. Krista Burns is a PhD in Health Administration with an emphasis in Global Health Policy, a Doctor of Chiropractic, and Postural Neurologist. She has participated in over 1000 hours of advanced education in posture, neurology, and human physiology. She is the Co-Founder of the American Posture Institute and the author of the textbook the *Principles of Posture*. Dr. Krista is a highly sought after international speaker and is the creator of the Certified Posture Expert and Certified Postural Neurologist online programs. The American Posture Institute is the world’s leading resource in post-graduate online posture education. Specializing in advanced postural education, thousands of health care professionals in over 30 countries worldwide have implemented the American Posture Institute’s posture analysis and postural correction protocols.

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