2021

Focal Dystonia: Roads to Rehabilitation Annotated Bibliography

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Publication Statement

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Annotated Bibliography

5 Bowman, Eric J. "Rehabilitation Strategies for Brass Musicians with Focal Task-Specific Embouchure Dystonia." DMA diss. University of Miami, 2017. https://du.idm.oclc.org/login?url=https://www.proquest.com/dissertations-theses/rehabilitation-strategies-brass-musicians-with/docview/1908924544/se-2?accountid=14608.

Dr. Eric J. Bowman provides insight on the types of rehabilitation strategies that are useful for brass musicians who have focal dystonia. This document provides valuable information as it provides different types of literature in the form of different rehabilitation techniques as well as breaking down these specific methods such as body-mapping, healthy breathing, healthy brass playing, and focus of attention. It also quotes from musicians who have endured focal dystonia and how they dealt with the specific rehabilitation technique. The author argues that the goals of the rehabilitation is to provide different means of reducing extraneous tension by focusing on sound production rather than physical sensation.

11 Batla, Amit, Maria Stamelou, and Kailash P. Bhatia. "Treatment in Focal Dystonia." Current Treatment Options in Neurology, no. 14: (2012). 213-229 https://doi.org/10.1007/s11940-012-0169-6

This article by these neurologists goes into detail regarding the overview of the different types of dystonia in terms of the medical background information. Unlike similar sources, this one specifically provides the context of oral medications that are useful in dystonia treatment as well as highlighting procedures and disclaimers for the medications. The authors are firm with their take on medications and provides a unique perspective in a chemical treatment rather than physical.

18 Gulbranson, Ashley. "A Lost Embouchure Found: A Journey Back from Focal Dystonia." Horn Call: Journal of the International Horn Society 44, no. 3 (May 2014): 31–32. https://search-ebscohost-com.du.idm.oclc.org/login.aspx?direct=true&db=a9h&AN=95472402&site=ehost-live&scope=site.

Ashley Gulbranson is a horn player who actually got diagnosed with Focal Dystonia in the summer of 2012, with the earliest signs of focal dystonia showing up in the fall of 2010. This personal account is quite strong in terms of authority because this individual has done several remedial techniques that are beneficial towards embouchure stability as well as mental tips to

power through this neurological condition. With her process of rehabilitation, she had also decided to do a study on adult brass musicians with any signs of dystonia to help with preventative measures and treatment.

35 Emory Healthcare. "Your Fantastic Mind Season 1 Ep 4: Focal Dystonia." YouTube Video. 3:20. October 20th, 2020. https://www.youtube.com/watch?v=beXFk1NOKl8.

This educational YouTube video gives a detailed account on the types of dystonia such as writer's cramp or musician's cramp. It is important to highlight that it is not a physical sensation that is the problem, but it is actually a "mental cramp" within the brain that blocks the neural pathways towards what part of the body one tries to move. The relevance of this video is that it showed visual diagrams of the brain on how difficult it is to detect unusual activity found within the brain that affects movement. It is mentioned that one of the best ways to treat dystonia is for isolated botulinum toxin injections to counteract the condition.

2 "Task-Specific Focal Dystonia: Medlineplus Genetics." MedlinePlus. U.S. National Library of Medicine, August 18, 2020. https://medlineplus.gov/genetics/condition/task-specific-focal-dystonia/.

This informational web page providers relevant information regarding focal dystonia, which is an isolated location of uncontrollable quivers within any specific part of the body. Unlike most encountered sources, this one provides statistics regarding an estimate of how many people have task-specific dystonia as well as looking into different causes. For example, this page talks about how having a family history of dystonia can be a considerable risk factor for the condition as well as unusual environmental factors.

3 Lederman, Richard J. Neuromuscular and Musculoskeletal Problems in Instrumentalists. New York: Wiley Subscription Services, (2003.) https://www.aanem.org/mxonline/resources/downloads/Monograph/43_NM%20And%20Musculoskeletal%20Problems%20in%20Instrumentalists.pdf

This monograph by Richard Lederman goes into detail about the different types of occupational health problems that can arise within people with task-specific careers, specifically neuromuscular and musculoskeletal problems. Unlike common sources for focal dystonia, this monograph highlights a study done on musicians that musculoskeletal disorders made up for 63% of the total tested, peripheral nerve disorders accounted for 18%, and focal dystonia

accounted for 9%. While the specific condition of dystonia is low, it is still important to highlight that these are all neurological discrepancies that can affect a musician's lively hood.

19 Guptill, Christine, and Christine Zaza. "Injury Prevention: What Music Teachers Can Do." *Music Educators Journal* 96, no. 4: 28–34 (2010). http://www.jstor.org/stable/40666426.

This journal article from the *Music Educators Journal* provides extremely valuable information for all music educators about preventing a playing injury as a musician. A general background is provided to get readers acquainted with different types of dystonia that can occur within musician's as well as strategies to prevent the development of neurological problems such as a warm-up regime, breaks within practicing, good playing posture, proper tension-free technique, smart repetition, and effective pacing. This source is a very strong tool for injury prevention and should be taken into heavy consideration if one wants to be proactive in healthy playing health.

22 Lee, A., C. Eich, C. I. Ioannou, and E. Altenmüller. "Life Satisfaction of Musicians with Focal Dystonia." *Occupational Medicine* 65, no. 5. (May 11, 2015.) 380-385 https://academic.oup.com/occmed/article/65/5/380/1425657?login=true.

This journal article deals with patients who have focal dystonia and how satisfied they are with their life developing the neurological condition. 295 musicians responded to a questionnaire if they had changed their profession or not and if they are satisfied with their life despite developing a potentially career-altering condition. While this article does not provide specific physical rehabilitation techniques, it does provide a more mental approach as to how people who have developed focal dystonia are coping with the condition and if they are satisfied with their current life.

23 Lee, André, Shinichi Furuya, Mansori Morise, Peter Iltis, and Eckart Altenmüller. "Quantification of Instability of Tone Production in Embouchure Dystonia." Parkinsonism & Related Disorders 20, no. 11 (August 15, 2014.) 1161-1164 https://www-sciencedirect-com.du.idm.oclc.org/science/article/pii/S1353802014003058

This article goes into detail about a study of focal dystonia that affects tone production within brass musicians. The authors who conducted this study focus on how stable a brass musician can hold a sustained note without quivering in relation to time and a natural embouchure. This article stands out because it is a survey of documented musicians completing a playing assessment and comparing the statistics of different degrees of embouchure dystonia.

29 Uehara, Kazumasa, Shinichi Furuya, Hidemi Numazawa, Kahori Kita, Takashi Sakamoto, and Takashi Hanakawa. "Distinct Roles of Brain Activity and Somatotopic Representation in Pathophysiology of Focal Dystonia ." *Human Brain Mapping* 40 (December 20, 2018.) 1738-1749 https://onlinelibrary.wiley.com/doi/full/10.1002/hbm.24486.

This article provides readers with multiple MRI images of the human brain to highlight different types of dystonia found within different people. Specifically, the researchers were interested in the correlation of focal dystonia and somatotopy between the brain and specific regions within the body. While it does not provide strategies of rehabilitation, it does provide readers with different visual representations of the degrees of dystonia that are prevalent within people with dystonia.

16 Gillie, Gina. "Embouchure Overuse Injuries: A Personal Experience and Advice for Recovery." *Horn Call: Journal of the International Horn Society* 51, no. 1 (October 2020): 73–76. https://search-ebscohost-com.du.idm.oclc.org/login.aspx?direct=true&db=a9h&AN=146619402&site=ehost-live&scope=site.

This journal article found in the Horn Call journal is a personal recollection of Gina Gilllie, who was a brass musician that developed Embouchure Overuse Syndrome, which is a condition of overworking the playing embouchure to the point of discomfort or injury. The writer gives personal statements of things to do if the embouchure is overworked such as rest, changing a routine to make it not as strenuous, anti-inflammatory medications and ice therapies. Physical techniques are mentioned in this article like many other common articles on dystonia, but this one highlights mental aspects of recovery such as reframing expectations, focusing on not physical characteristics of playing and keeping a journal to track progress. Also, emotional aspects are also touched on such as patience and not comparing your skill to your growth during this time period of rehabilitation.

25 Nagel, Julie Joffee. "Harmonizing the Psychological and Physical Health of Musicians." *American Music Teacher* 64, no. 4 (2015): 31–33. http://www.jstor.org/stable/43543802.

This article by Julie Joffee Nagel from the *American Music Teacher* highlights the importance of being a healthy musician both mentally and physically. It does not provide physical rehabilitant techniques, but it does provides readers insight to environmental factors that may affect a musician's well-being.