

## The Effect of Chronic Neck Pain and Training on Directional Specificity of Neck Muscle Activation

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This book examines the neural control of neck muscles in patients with chronic neck pain, and further examines if training can improve the neural control of neck muscle activation. The book includes: 1) the directional specificity of the sternocleidomastoid and splenius capitis muscles activity in patients with chronic neck pain and healthy controls, 2) the neural drive to the sternocleidomastoid by evaluating the behavior of single motor units during isometric contractions in the horizontal plane, 3) the influence of reduced sternocleidomastoid directional specificity on neck strength, and 4) the effect training on the directional specificity of neck muscle activity in patients. The studies revealed that patients with neck pain display reduced directional specificity of neck muscle activity and that the directional specificity of neck muscle activity can be enhanced by specific training.

Center for Sensory-Motor Interaction

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