

# Bachelor-Thesis – Master-Thesis

## Acute effects of soccer heading on brain function

Repetitive subconcussive head impacts, e.g. headers in soccer, might cause neurocognitive deficits and microstructural changes in the brain. In a broader research project we try to determine possible long-term effects of heading on brain function and structure.

We are interested in examining acute effects of headers on brain function.

### Methoden:

Various neuropsychological, sensorimotor and/or balance tests.

### Questions:

Acute effects of heading on neurocognitive, sensorimotor and balance performance.

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### Information/Literature:

*Caccese, J. B., Buckley, T. A., Tierney, R. T., Rose, W. C., Glutting, J. J., & Kaminski, T. W. (2018). Postural Control Deficits After Repetitive Soccer Heading. Clinical Journal of Sport Medicine : Official Journal of the Canadian Academy of Sport Medicine.*

*Gutierrez, G. M., Conte, C., & Lightbourne, K. (2014). The relationship between impact force, neck strength, and neurocognitive performance in soccer heading in adolescent females. Pediatric Exercise Science, 26, 33–40.*

*Kontos, A. P., Braithwaite, R., Chrisman, S. P. D., McAllister-Deitrick, J., Symington, L., Reeves, V. L., & Collins, M. W. (2017). Systematic review and meta-analysis of the effects of football heading. British Journal of Sports Medicine, 51, 1118–1124.*

