

Dr Josh McGeown



**AUT BRAIN HEALTH
RESEARCH INSTITUTE**



Positions

Senior Research Fellow -
Mātai Medical Research
Institute

Contact info

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Research focus

Josh is a Senior Research Fellow at the Mātai Medical Research Institute, with an honorary position at the University of Auckland. His research focuses on using advanced multimodal MRI to characterise brain changes following mTBI and to understand how alterations in brain structure and function relate to symptom experience and recovery over time. His broader work spans collision sports, the effects of physical activity on brain health and function, and the neurobiological consequences of repetitive head impacts.

Current projects

1. Brain health in collision sports: Linking early life changes to long term clinical outcomes using multimodal neuroimaging
2. From playground to scanner: Experimental effects of physical activity, play, and screen time on paediatric brain networks
3. Ram-ifications of Repeated Head Impacts: Linking In Vivo Biomarkers to Neuropathology

Examples of recent work

McGeown, J. P., Newburn, G., Condrón, P., Holdsworth, S. J., Melzer, T. R., Scadeng, M., ... & Bydder, G. M. (2026). Whiteout sign on dSIR MRI: A case series highlighting symptom-associated white matter changes not observed on standard T2-FLAIR. *Brain Injury*, 1-8.

McGeown, J. P., Pedersen, M., Mito, R., Theadom, A., Maller, J. J., Condrón, P., & Holdsworth, S. J. (2025). Neuroimaging correlates of symptom burden and functional recovery following mild traumatic brain injury: A systematic review. *NeuroImage: Clinical*.