

1 Longitudinal study of concussion-related diffusion MRI
2 changes in college athletes: modeling tracts via
3 hierarchical generalized additive models

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Abstract here.

KEYWORDS: DWI, MRI, GAM, TBI

1 Introduction

Introduction here.

2 Methods

2.1 Participants

Participants here.

2.2 ImPACT

Description of ImPACT.

2.3 MRI Protocol

Description of MRI protocol.

2.4 MRI Data Processing

Description of DWI processing.

2.5 GAM specification

Description of GAM.

3 Results

3.1 Participants

Demographics and ImPACT.

28 **3.2 DWI Tracts**

29 Tract results.

30 **3.3 DWI Tracts Interactions - ImPACT**

31 Description of DWI-ImPACT interaction.

32 **3.4 DWI Tracts Interactions - Time**

33 Description of DWI-time interaction.

34 **4 Discussion**

35 Discussion.

36 **Acknowledgments**

37 People. Grant.

38 **5 Supplemental Materials**

39 Supplemental Materials.

40 **5.1 Tables**

41 Supplemental Tables.

42 **5.2 Figures**

43 Supplemental Figures.