Supplemental Description of ICA Results:

Component 1 – 17.65 %

Component 2 – 14.71%

Component 3 – 14.50%

Component 4 – 13.39%
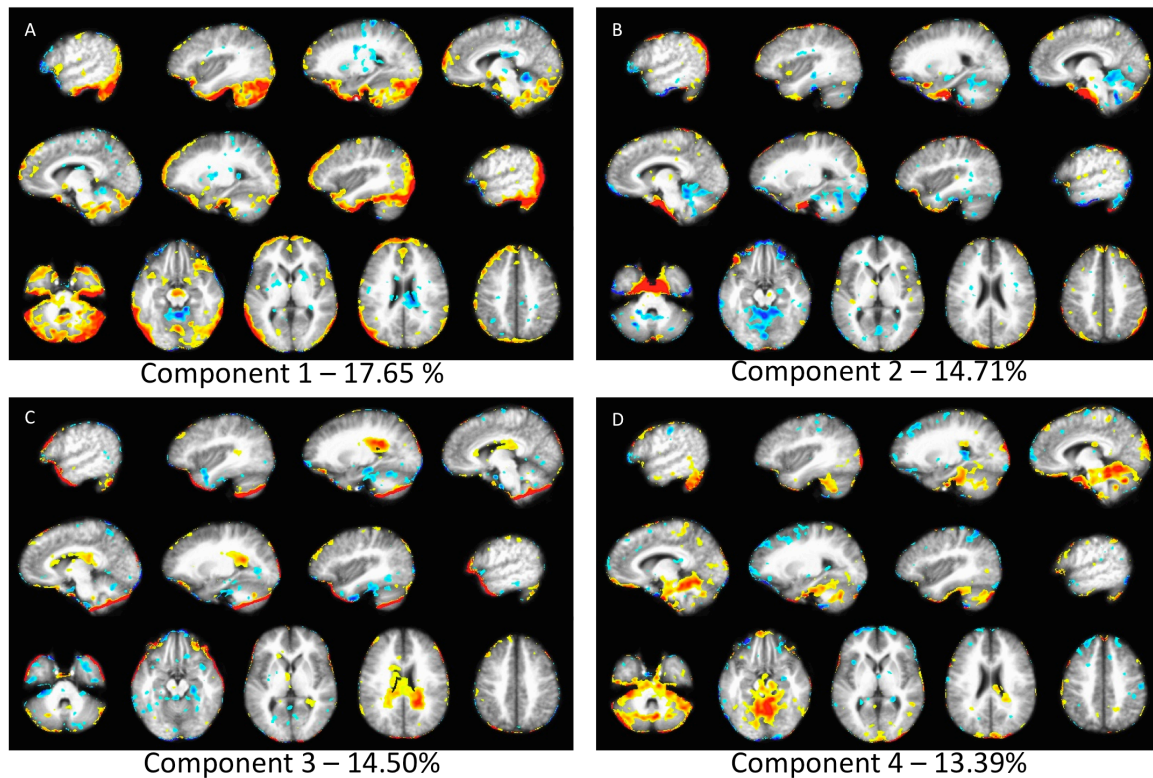
Supplementary Figure 1: Complete Results of Independent Components Analysis (ICA). After denoising, four components were an ideal fit for the data. Each of these components are shown in the figure (panels A-D), along with the percent of variance explained. Component #1 (panel A) is described further in the main text and in Figure 4.
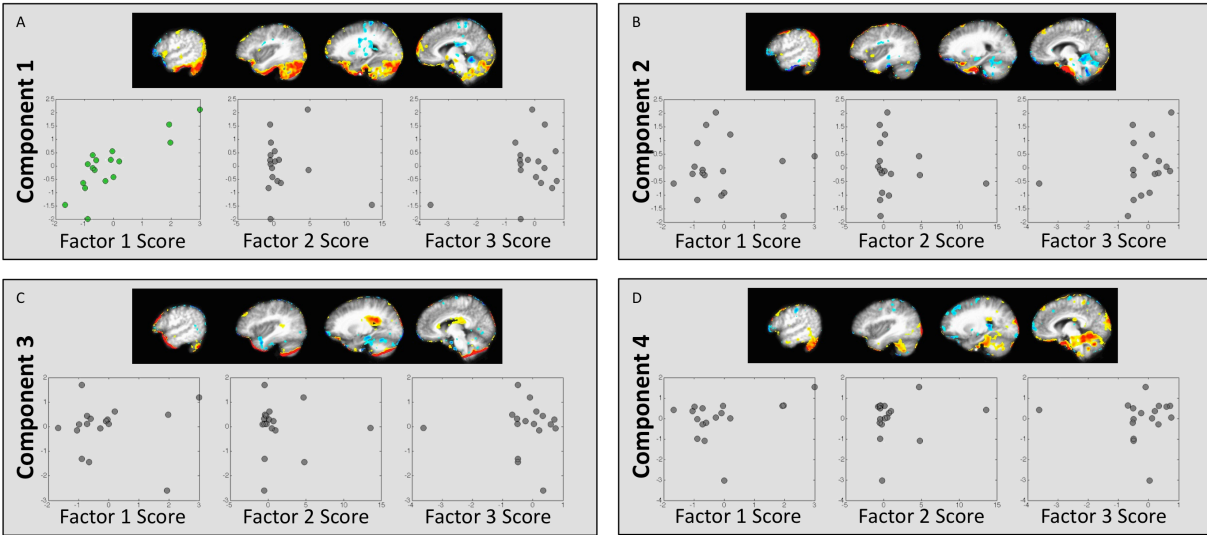
Supplementary Figure 2: Complete Results of Associations between Head Trauma Factors and Independent Components. Each of the four ICA components identified after denoising are shown (panels A-D). Scatter plots of each head trauma factor and each component score are shown in panel inset (from left to right, *Factor 1 – Blast Exposure, Factor 2 - Symptom Duration*, and *Factor 3 - Blunt Concussions)*. The only association to survive correction for multiple comparisons was the association between *Factor 1 – Blast Exposure* and the first component (panel A, shown in green). This relationship is described further in the main text and in Figure 4.