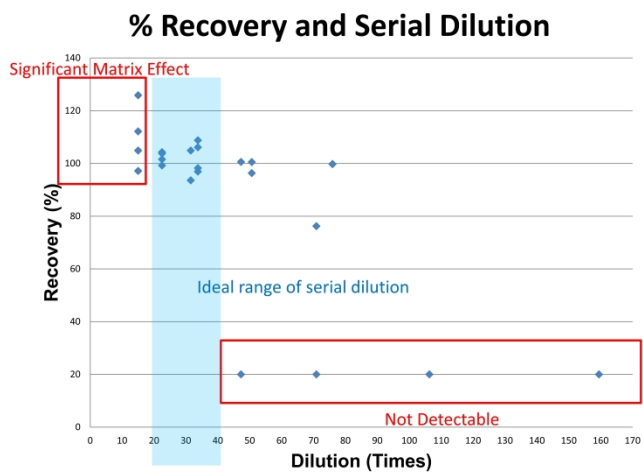


Domain	Neurological Test	Description of Tests
Attention	Trail Making Test A	Subjects draw a line between consecutive numbers, testing visual attention and processing speed.
	Digit Span from Wechsler Adult Intelligence Scale-R	Subjects repeat a string of numbers and letters to measure attention deficits
Memory	California Verbal Learning Test (CVLT) II-Long Delay Free Recall	A list of nouns provided to a subject, and the subject then attempts to repeat as many words they can remember after 20 minutes, testing verbal learning and memory.
	Rey-Osterrieth Complex Figure Test, Delayed Recall	Subjects copy a line drawing and later draws it from memory immediately after copying the image and again after 30 minutes, testing visual memory and visuospatial functioning
Executive Function	Trail Making Test B	Subjects connect consecutive numbers and letters while alternating between the two sequences, testing ability to switch between tasks and processing speed.
	Stroop Task Interference Test	Subjects name the color of a printed word, rather than reading the color word, testing selective attention and cognitive flexibility.
Verbal Fluency	Delis- Kaplan Executive Functions Systems (DKEFS)	Subjects name words beginning with a certain letter or words that belong to a specific category while switching between categories, testing verbal associations and fluency.
	Controlled Oral Word Association, Animal	Subjects name words beginning with a certain letter or words that belong to a certain category, testing verbal fluency and associations.

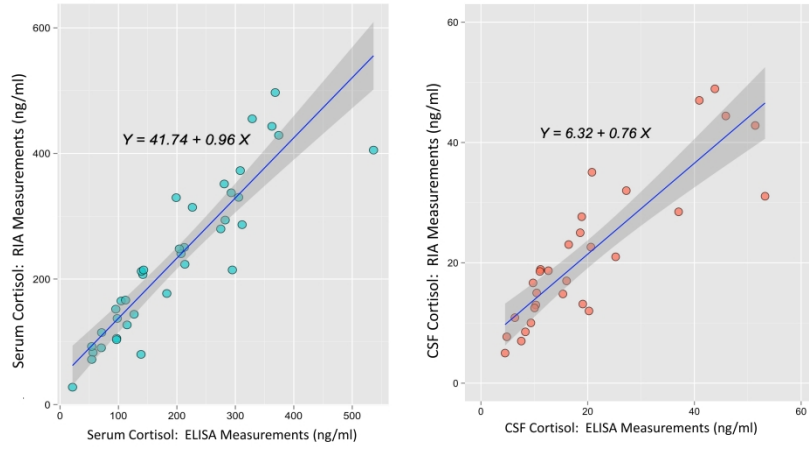
Supplemental Figure 1: Summary of Neuropsychological Tests Administered for Cognitive Composite Domain Scores

338x190mm (600 x 600 DPI)



Supplemental Figure 2: Linearity of dilution results

338x190mm (600 x 600 DPI)



Supplemental Figure 3: Serum and CSF samples measured via RIA versus ELISA

338x190mm (600 x 600 DPI)

Supplemental Figure 1. Summary of the 8 neurological tests administered for the cognitive composites domain scores. The attention domain composed of the Trails Making Test A (Reitan 1955) and the Digit Span from Wechsler Adult Intelligence Scale R (Larrabee and Curtiss 1995). The memory domain was composed of the California Verbal Learning Test (CVLT) II-Long Delay Free Recall (Wiegner and Donders 1999) and Rey-Osterrieth Complex Figure Test (Shin et al. 2006). The executive function was composed of the Trail Making Test B (Reitan 1955) and the Stroop Task Interference Test (Trenerry et al. 1989). The Verbal Fluency domain was composed of the Delis- Kaplan Executive Functions Systems (DKEFS) (Delis and Kaplan 2001) and the Controlled Oral Word Association (animal category) (Borkowski, Benton, and Spreen 1967).

Supplemental Figure 2. The linearity of dilution results. Six individual serum control samples were tested at a range of serial dilutions from 15x to 160x to determine the ideal dilution range. The relative recovery (the result at a specific dilution as compared to that at the immediate lower dilution) reaches ~100% at dilutions >20x. Although this linearity continues at dilutions >50x, the analyte levels in some samples could not be measured due to the limited sensitivity of the plate at this high dilution range. At dilutions <20x, the relative recovery was consistently near or above 100%, indicating significant matrix effects in the immediately lower sample dilution. Therefore, we concluded the ideal range of dilution for further experiments to be 20-40x (blue shaded region).

Supplemental Figure 3: Serum and CSF samples measured via RIA versus ELISA. A) Cortisol levels for N=38 serum samples were run using both RIA and ELISA methods. B) Cortisol levels

Acute Cortisol and Cognition post-TBI

N=30 CSF samples were run using both RIA and ELISA methods. Linear regression equations were used to estimate RIA cortisol values for samples measured via ELISA in order to pool data for analysis.