Supplementary Table 2. Linear model for association between change in cognitive function and change in serum testosterone levels

Cognitive Domain	ß (95% CI)	p-value
Visual Spatial Tests		
Route Learning Test (immediate recall)		
Δ Total Testosterone, 100 ng/dl	0.004 (-0.066, 0.074)	0.91
Δ Free Testosterone, 10 pg/ml	-0.009 (-0.378, 0.361)	0.96
Route Learning Test (delayed recall)		
Δ Total Testosterone, 100 ng/dl	-0.007 (-0.086, 0.073)	0.87
Δ Free Testosterone, 10 pg/ml	-0.001 (-0.422, 0.420)	>0.99
Complex Figure (immediate recall)		
Δ Total Testosterone, 100 ng/dl	0.03 (-0.01, 0.06)	0.16
Δ Free Testosterone, 10 pg/ml	0.12 (-0.08, 0.32)	0.24
Complex Figure (delayed recall)		
Δ Total Testosterone, 100 ng/dl	0.02 (-0.03, 0.06)	0.47
Δ Free Testosterone, 10 pg/ml	0.12 (-0.13, 0.37)	0.34
Verbal Memory Tests		
Paragraph (immediate recall)		
Δ Total Testosterone, 100 ng/dl	0.010 (-0.023, 0.042)	0.55
Δ Free Testosterone, 10 pg/ml	0.05 (-0.12, 0.23)	0.54
Paragraph (delayed recall)		
Δ Total Testosterone, 100 ng/dl	-0.002 (-0.039, 0.036)	0.93
Δ Free Testosterone, 10 pg/ml	-0.002 (-0.205, 0.201)	0.98
Buschke (immediate: Total Correct)		
Δ Total Testosterone, 100 ng/dl	-0.02 (-0.05, 0.01)	0.29
Δ Free Testosterone, 10 pg/ml	-0.06 (-0.22, 0.11)	0.48
Buschke (delayed: Total Correct-Free)		
Δ Total Testosterone, 100 ng/dl	-0.01 (-0.05, 0.03)	0.52

Δ Free Testosterone, 10 pg/ml	-0.07 (-0.29, 0.15)	0.53
Verbal Ability/Language Tests		
Verbal Fluency (I)		
Δ Total Testosterone, 100 ng/dl	0.006 (-1.176, 1.187)	0.99
Δ Free Testosterone, 10 pg/ml	-0.88 (-7.28, 5.53)	0.78
Verbal Fluency (K)		
Δ Total Testosterone, 100 ng/dl	-0.82 (-1.90, 0.26)	0.13
Δ Free Testosterone, 10 pg/ml	-4.7 (-10.5, 1.1)	0.11
Verbal Fluency (P)		
ΔTotal Testosterone, 100 ng/dl	-1.05 (-2.37, 0.28)	0.12
Δ Free Testosterone, 10 pg/ml	-4.0 (-11.3, 3.3)	0.27
Categorical Fluency		
Δ Total Testosterone, 100 ng/dl	-0.37 (-2.01, 1.28)	0.65
Δ Free Testosterone, 10 pg/ml	-3.6 (-12.6, 5.4)	0.42
Attention and Executive Function Tests		
VSLT I (immediate)		
Δ Total Testosterone, 100 ng/dl	0.08 (-0.40, 0.56)	0.73
Δ Free Testosterone, 10 pg/ml	0.59 (-2.00, 3.19)	0.64
VSLT II (delayed)		
Δ Total Testosterone, 100 ng/dl	0.01 (-0.50, 0.52)	0.96
Δ Free Testosterone, 10 pg/ml	0.15 (-2.61, 2.91)	0.91
Letter-Number Sequencing		
Δ Total Testosterone, 100 ng/dl	-0.009 (-0.039, 0.020)	0.53
Δ Free Testosterone, 10 pg/ml	-0.04 (-0.20, 0.12)	0.61
Stroop Interference Test		
Δ Total Testosterone, 100 ng/dl	-1.1 (-3.6, 1.5)	0.39
Δ Free Testosterone, 10 pg/ml	-6.1 (-20.0, 7.7)	0.37
Trails B		
Δ Total Testosterone, 100 ng/dl	0.58 (-11.25, 12.41)	0.92
Δ Free Testosterone, 10 pg/ml	0.10 (-63.07, 63.26)	0.99

Mazes		
Δ Total Testosterone, 100 ng/dl	-16.1 (-38.8, 6.5)	0.16
Δ Free Testosterone, 10 pg/ml	-102 (-219, 14)	0.08

VSLT= Visual Spatial Learning Test; ß coeffcients represent change in cognitive scores as a function of 100 ng/dl change in total and 10 pg/ml change in free testosterone levels, respectively. Linear models are adjusted for baseline scores, age and education