

Table S1: Summary of Studies Assessing Acute Ingestion

Reference	Subjects N (#female) Age (y)	Guarana Dose (Caffeine content) #Other Treatment	Time of Testing After Ingestion (min)	Guarana Source	Cognitive Tests	Parameter Measured	Effects (p<0.05) G vs. P	Effects (p<0.05) of G vs. Other Treatment
Galduróz 1994 * [16]	30(24F) R = 24-35	500 mg Capsule (CAF = 2.1%) #- CAF (12.5 mg)	60	NR	Digit Span Free Recall Digit Symbol Cancellation	Immediate Memory (SC) Short Term Memory (SC) Attention (SC) Attention (SC)	ND ND ND ND	ND for G vs. CAF- all tasks
Haskell 2007 [18]	26 (NR) X = 21.4	37.5, 75, 150, 300 mg Capsule (CAF = 11-12%)	60, 180, 360	PC-102, Pharmaton, SA	Computerized Assessment Battery	Attention (RT) Attention (%) Memory (RT) Secondary Memory (%) Working Memory (%)	ND ND ND + 37.5mg(MT) 75mg(MT) ND	
Kennedy 2004 [17]	28 (19F) X = 21.4	75 mg Capsule (CAF = 11-13%) #-G (75mg) +ginseng, #-Ginseng	60, 150, 240, 360	Dried Ethanollic Extract	Computerized Assessment Battery Logical Reasoning Sentence Verification Serial Threes Subtraction Serial Sevens Subtraction	Attention (RT) Attention (%) Memory (RT) Secondary Memory (SC) Working Memory (SC) Reasoning (RT) Reasoning (%) Verification (RT) Verification (%) Attention/Working Memory (SC) Attention/Working Memory (%) Attention/Working Memory (SC) Attention/Working Memory (%)	+ G(60,240,360) GM(150, 240,360) ND + GM(240, 360) + G(150) ND ND ND + G(2.5,4,6) GM(2.5) ND ND + G(2.5,4) GM(4,6) + G(1,2.5,4,6) GM(1,6) - G(4) + GM(1,2.5)	
Kennedy 2008 * [19]	130 (70F) X = 21.0	222.2 mg in 200 ml water (CAF = 40 mg)	30, 40, 50, 60, 70, 80	Berocca Boost (Vitamins/ Minerals)	Serial Threes Subtraction Serial Sevens Subtraction Rapid Visual Information Processing	Attention/Working Memory (SC) Attention/Working Memory (%) Attention/Working Memory (SC) Attention/Working Memory (%) Visual Processing (RT) Visual Processing (%)	ND ND ND ND + (30,40,50,60,80) + (30,40,50,60,70,80)	

					Delayed Word Recall	Working Memory (RT)	ND	
					Word Recognition	Working Memory (%)	ND	
					Picture Recognition	Visual Memory (RT)	+ (CB)	
						Visual Memory (%)	ND	

Supplementary Table S1. Summary of Studies Assessing Acute Ingestion of Guarana (n = 9): Description of studies meeting the inclusion criterion when examining effects of acute guarana ingestion on cognitive performance compared to a placebo or control condition (may contain other substances but otherwise no guarana).

Symbols: + = Significantly in favor of Guarana (Guarana had faster response time or higher accuracy), - = Significantly in favor of placebo X = Mean, * = Independent Group Design, Abbreviations: F = Females R = Range, NR = Data Not Reported, G = Guarana Ingestion, P = Placebo, CAF = Caffeine, GM = Guarana Ingestion Mixed with Other Nutrients, MT = Mean of All Time Points, CB = Change From Baseline Condition, AD = All Doses, AE = After Exercise, % = Accuracy, RT = Response Time, FA = False Alarms Generated, SC = Score, ND = No Significant Difference