

Total Number of 4B True Responses ____

Deficiency Results Summary

1B Total Number of True Responses: DOPAMINE DEFICIENCY _____
2B Total Number of True Responses: ACETYLCHOLINE DEFICIENCY _____
3B Total Number of True Responses: GABA DEFICIENCY _____
4B Total Number of True Responses: SEROTONIN DEFICIENCY _____

This test and the following recommendations are taken directly from Dr. Eric R. Braverman's book, "The Edge Effect: Achieve Total Health and Longevity with the Balanced Brain Advantage" New York: Sterling Publications, 2005.

Deficient dopamine Early warning signs are loss of energy, fatigue, sluggishness, memory loss, or the blues.

Physical issues: Anemia, balance problems, blood sugar instability, bone density loss, carbohydrate cravings, decreased appetite, decreased strength, diabetes, diarrhea, anorgasmia, digestion problems, hypersomnia, head and facial tremors, high blood pressure, hyperglycemia, joint pain, kidney problems, light-headedness, low libido, narcolepsy, obesity, Parkinson's, slow metabolism, slow rigid movements, substance abuse, sugar cravings, tension, tremors, thyroid problems, swallowing problems.

Personality Issues: Aggression, anger, carelessness, depression, fear of being observed, guilt, hopelessness, worthlessness, pleasure-seeking behavior, stress intolerance, social isolation, mood swings, procrastination, self-destructive thoughts.

Memory Issues: Distractibility, lack of follow-through, forgetfulness, lack of working memory, poor abstract thinking, slow processing speed.

Attention Issues: ADD, decreased alertness, failure to finish tasks, hyperactivity, impulsive behavior, poor concentration.

Dopamine Boosters for Brain Energy

	Minor Deficit (0-5)	Moderate Deficit (6-15)	Major Deficit (15+)
Phenylalanine	500 mg	1000 mg	1000-2000 mg
Tyrosine	500 mg	1000 mg	1000-2000 mg
Methionine	250 mg	500 mg	1000 mg
Rhodiola	50 mg	100 mg	200 mg
Pyroxidine	5 mg	10 mg	50 mg
B complex	25 mg	50 mg	100 mg
Phosphatidylserine	50 mg	100 mg	200 mg
Ginko Biloba	50 mg	75 mg	100 mg

Dietary modifications can boost dopamine as well. Increase your intake of phenylalanine and tyrosine (use Equal as a sugar substitute), eat chicken, cottage cheese, eggs, pork, ricotta cheese, soybean products, turkey, walnuts, wheat germ, granola, oats, duck, and milk and yogurt.

To prevent dopamine burnout, practice deep breathing (from abdomen), alternating nostrils, watch non-violent movies and TV shows, weight lifting 3 times per week. Prevent exposure to lead and cadmium. Stop smoking. A cup or two of caffeine in the morning is a very common way to increase dopamine, however this can cause insomnia or tremors if dosage is too high or it is taken too late in the day.

Deficient Acetylcholine Acetylcholine controls your brain speed and the rate at which electrical signals are processed, connecting your physical experiences to memories and thoughts. When your brain speed

slows with deficient acetylcholine, the brain does not have time to connect all the new stimuli to previously stored information, so it is discarded when the new information pours in. Your recall may become spotty, and you may not react to sensory stimuli as fast as before. This causes forgetfulness.

Physical Issues: Agitation, Alzheimers, anxiety, arthritis, autism, high cholesterol, decreased sexual ability, diabetes, problems urinating, dry cough, dry mouth, dyslexia, frequent urination, eye disorders, fat cravings, frequent bowel movements, glaucoma, lack of arousal, inflammatory problems, multiple sclerosis, osteoporosis, reading/writing disorders, slowness of movement, speech problems

Personality Issues: Bipolar disorder, math errors, changes in personality and language, hysterical behavior, mood swings, rule breaking.

Memory Issues: Learning disorders, loss of immediate visual and verbal memory, memory disturbance, memory lapses.

Attention Issues: Attention problems, difficulty concentrating, diminished comprehension, impaired abstract thinking, impaired creativity.

Acetylcholine Boosters

	Minor Deficit (0-5)	Moderate Deficit (6-15)	Major Deficit (15+)
Choline (GPC choline)	100 mg	200 mg	500 mg
Phosphatidylcholine	500 mg	1000 mg	2000 mg
Phosphatidylserine	50 mg	100 mg	200 mg
Acetyl-L-carnitine	250 mg	500 mg	1000 mg
DHA (Docosahexaenoic acid)	200 mg	500 mg	1000 mg
Thiamine	25 mg	50 mg	100 mg
Pantothenic Acid	25 mg	50 mg	100 mg
Vitamin B12	100 mcg	200 mcg	500 mcg
Taurine	250 mcg	500 mcg	1000 mcg
Huperzine-A	50 mcg	100 mcg	200 mcg
Ginkgo Biloba	50 mg	75 mg	100 mg
Korean Ginseng	100 mg	200 mg	500 mg

Deficient GABA Gaba is produced in the temporal lobes and is associated throughout the brain with calming, rhythmic theta waves – the “idling frequency” of neurons. GABA is the major inhibitory neurotransmitter of the brain, which keeps all of the other biochemicals in check. GABA controls the brains rhythm so that you function mentally and physically at a steady pace. When your rhythm is thrown off by a GABA deficiency, you may begin to feel anxious, nervous, or irritable. Without enough GABA, your brain produces energy in bursts, which impacts your emotional well-being.

Physical Issues: Tremors, allergies, appetite changes, backache, blurred vision, carbohydrate cravings, chest pain, clammy hands, constipation, decreased libido, diarrhea, difficulty swallowing, dizziness, dry mouth, excessive sleepiness, headache, hypertension, hyperventilation, insomnia, irritable bowel syndrome, muscle loss, muscle tension, nausea, night sweats, paresthesias, PMS, protein cravings, seizures, shortness of breath, stroke, heart palpitations, ringing in ears, trembling, twitching, urinary frequency.

Personality Issues: Problems adjusting to stress, anxiety, depression, feelings of dread, excessive guilt, worthlessness, hopelessness, emotional immaturity, manic depression, obsessive compulsive disorder, phobias, rage, restlessness, thoughts of suicide, psychosis.

Memory Issues: Poor verbal memory, global memory problems.

Attention Issues: Difficulty concentrating, disorganized attention pattern associated with anxiety, high anxiety, impulsive attention errors (jumping the gun, erratic driving), inability to think clearly.

GABA Boosters

	Minor Deficit (0-5)	Moderate Deficit (5-15)	Major Deficit (15+)
Inositol	500 mg	1000 mg	2000 mg
GABA (not well-absorbed)	100 mg	500 mg	1000 mg
Glutamic Acid	250 mg	500 mg	1000 mg
Melatonin (at night)	1 mg	2 mg	3-6 mg
Thiamine	200 mg	400 mg	600 mg
Niacinamide	25 mg	100 mg	500 mg
Pyridoxine	5 mg	10 mg	50 mg
Valerian root	100 mg	200 mg	500 mg
Passionflower	200 mg	500 mg	1000 mg

Serotonin Deficiency Serotonin is produced in great quantities in the occipital lobes and helps create the neurological electricity for sight and rest, and also controls your cravings. The occipital lobes maintain your brain's overall balance, or synchrony, by regulating the output of all the primary brain waves. The four brain waves appear in varying combinations throughout the day, but at night serotonin allows the brain to recharge and rebalance. If these brain waves are out of sync, the left and right sides of your brain will be out of balance, and you might feel like you are going off the edge; you are overtired, out of control, and unable to get a restful sleep. When serotonin is unbalanced, your brain's ability to recharge itself is compromised. Serotonin burnout can occur from experiencing too much excitement or not getting enough sleep. When this happens, you simply cannot think clearly.

Physical Issues: Aches and soreness, allergies, arthritis, backache, blurred vision, carbohydrate cravings, clammy hands, constipation or diarrhea, difficulty swallowing, dizziness, drug or alcohol addiction, drug reactions, dry mouth, hallucinations, headaches, high pain/pleasure threshold, hypersensitivity, excessive sleeping, hypertension, insomnia, muscle tension, nausea, night sweats, palpitations, paresthesias, PMS, premature ejaculation, premature orgasm for women, salt cravings, tachycardia, ringing in ears, tremors, urinary frequency, vomiting, weight gain.

Personality Issues: Codependency, depersonalization, depression, impulsiveness, lack of artistic appreciation, lack of common sense, lack of pleasure, social isolation, masochistic tendencies, obsessive compulsive disorder, paranoia, perfectionism, phobias, rage, self-absorption, shyness.

Memory Issues: Confusion, memory loss, too many ideas to manage.

Attention Issues: Difficulty concentrating, hypervigilance, restlessness, slow reaction time.

Serotonin Boosters

	Minor Deficits (0-5)	Moderate Deficits (6-15)	Major Deficits (15+)
Calcium	500 mg	750 mg	1000 mg
Fish oil (pharmaceutical grade)	500 mg	1000 mg	2000 mg
5-HTP (with decarboxylase inhibitor)	100 mg	200 mg	400 mg
Magnesium	200 mg	400 mg	600 mg
Melatonin (at night)	1/3 mg	1/2-2 mg	1-6 mg
Passionflower	200 mg	500 mg	1000 mg
Pyridoxine	5 mg	10 mg	50 mg
SAM-e	50 mg	100 mg	200 mg
St. John's Wort	200 mg	400 mg	600 mg
Tryptophan (prescription)	500 mg	1000 mg	1500-2000 mg
Zinc	15 mg	30 mg	45 mg