

Brain Function Questionnaire

See which brain chemicals (neurotransmitters) you may be low in by taking the quiz below...

The “S” Group – Serotonin

Please mark the items which apply to your present feelings:

- It’s hard for you to go to sleep.
- You can’t stay asleep.
- You often find yourself irritable.
- Your emotions often lack rationality.
- You occasionally experience unexplained tears.
- Noise bothers you more than it used to. It seems louder than normal.
- You “flare up” at others more easily than you used to.
- You experience unprovoked anger.
- You feel depressed much of the time.
- You find you are more susceptible to pain.
- You prefer to be left alone.

If three or more of the above apply, then read below.

The “S” group – Serotonin is a hypothalamus neurotransmitter which is necessary for sleep to occur. A lack of serotonin causes difficulty in getting to sleep, as well as staying asleep. It is often this lack of sleep that causes the symptoms mentioned above.

Serotonin levels can easily be raised by supplementing with the essential amino acid, L-Tryptophan. Dietary supplements of L-Tryptophan are banned in the U.S. The natural sources of L-Tryptophan include milk, turkey, cheese, meat, ham, peanuts, and cottage cheese. Most of these are very high in calories and cholesterol content. As a consequence, in order to keep your serotonin supply at a proper level, you must supplement small amounts of food sources of L-Tryptophan with the serotonin production catalysts, calcium, magnesium, and trace element, chromium. 5 Hydroxytryptophan (5HTP), a form of Tryptophan, is available over-the-counter and works extremely well for most patients.

Peak X Warning – 5HTP is derived from plant sources and when manufactured correctly is incredibly safe. However, some manufactures try to cut corners and may produce batches of 5HTP with potentially harmful contaminants, including a substance known as “Peak X”.

Always read the label and make sure the 5HTP you're taking is certified to be Peak X free. Every batch of Dr. Murphree's 5HTP is certified to be "Peak X" free and is stated on every bottle.

Supplementing with 5HTP – Start with taking 50 mg. 30 minutes before bed. Take on an empty stomach, along with 4 oz. of juice (apple or grape). You may need to increase this dose, up to 200 mg. per night. You should fall asleep fairly quickly and sleep through the night, possibly waking only once to use the bathroom. If you do wake for the bathroom, you should be able to fall asleep quickly afterwards. If you feel hung over the next day, decrease your dose of 5HTP, it should not cause ANY "hang over" effects.

Warning – a few individuals who attempt to take 5HTP at night will have an adverse reaction. (These are the same people that usually have adverse reactions to NyQuil and other over the counter medications that usually cause drowsiness.) Individuals with a sluggish liver may have trouble breaking down 5HTP fast enough. Instead of making them sleepy, it revs them up and they become mentally alert. If this happens, simply take 1 or 2 5HTP tablets with food 1 or 2 times a day instead of at night time on an empty stomach.

Natural weight loss and increased energy are side benefits of 5HTP!!!

The "O" Group – Opioids

Please mark the items which apply to your present feelings:

- Your life seems incomplete.
- You feel shy with all but your close friends.
- You have feelings of insecurity.
- You often feel unequal to others.
- When things go right, you sometimes feel undeserving.
- You feel something is missing in your life.
- You occasionally feel a low self-worth or esteem.
- You feel inadequate as a person.
- You frequently feel fearful when there is nothing to fear.

If three or more of the above apply, then read below.

The "O" Group is named for the opioid neurotransmitters contained in the hypothalamus gland. Opioids are released in small bursts when we feel a sense of urgency (stress). Some individuals thrive on this sense of urgency. They love just meeting deadlines, racing around to get things done. They seem to feed off of this adrenaline rush. A sense of urgency can

help us get out of bed in the morning or get the kids off to school. However, if you can never turn this sense of urgency off, you'll eventually deplete the opioids along with other vital hormones including cortisol and DHEA.

As a way to turn off the constant mind chatter, those in the "O Group" use stimulants and mind numbing chemicals (alcohol, marijuana, food, etc.) to escape the constant pressure they place on themselves to be more, do more, and have more. Type A's are often overcome by opioid burn out. They cannot sit still. Until one day the bottom falls out and they "just can't do it anymore".

Alcohol and other chemicals can temporarily relieve the anxious feelings associated with opioid overload. They do so by providing artificial opioids. Unfortunately, these artificial opioids also cause the opioid manufacturing cells in your brain to reduce their output. In the long run these cells lose their ability to produce the needed opioid neurotransmitters. You then crave the artificial opioids and an addiction has been born. (Opioid comes from the word opium.)

When you exercise, your body causes extra quantities of the opioids to be released, takes away the pain of sore muscles and may provide a feeling of euphoria. Long distance runners and other avid exercise enthusiasts are well aware of the "the high" that comes from pushing the body past its normal limits. The opioids play an important role in pain modulation. A deficiency of opioids can lower our pain threshold. A lowered pain threshold means being more sensitive to painful stimuli.

DL-Phenylalanine (a special form of the amino acid phenylalanine) can be extremely helpful in restoring proper opioid levels.

Supplementing with DL-Phenylalanine – Start with 1000 mg, 1 to 2 times daily, on an empty stomach. If you don't seem to notice any benefits, keep increasing the dose up to 4000 mg., twice daily. If you experience a rapid heartbeat, agitation or hyperactivity, reduce or stop taking DL- Phenylalanine. L-Glutamine increases the effectiveness of both DL and L-Phenylalanine. Take 500 mg of L-Glutamine 1 to 2 times a day on an empty stomach along with the Phenylalanine. Both DL and L-Phenylalanine can increase blood pressure. If you already have high blood pressure, consult your doctor before taking either form of Phenylalanine. It can also be stimulating and should not be taken after 3PM.

This vicious cycle can also affect your adrenal glands. Extended periods of stress, caffeine and not enough sleep burn out our adrenals, which some people call our "life force". An adrenal glandular or herbs for gland support will help to support and rebuild the adrenals.

The “G” Group – (Anti-anxiety Amino Acids)

Please mark the items which apply to your present feelings:

- You often feel anxious for no reason.
- You sometimes feel “free floating” anxiety.
- You frequently feel “edgy” and it’s difficult to relax.
- You often feel a “knot” in your stomach.
- Falling asleep is sometimes difficult.
- It’s hard to turn your mind off when you want to relax.
- You occasionally experience feelings of panic for no reason.
- You often use alcohol or other sedatives to calm down.

If three or more of the above apply, then read below.

The “G” group symptoms are from the absence of the neurotransmitter, Gamma Amine Butyric Acid (GABA). GABA is an important neurotransmitter involved in regulating moods and mental clarity. Tranquilizers used to treat anxiety and panic disorders work by increasing the GABA. GABA is made from the amino acid, glutamine. Glutamine passes across the blood brain barrier and helps provide the necessary fuel needed for proper brain function. A shortage of L-Glutamine can reduce IQ levels. L-Glutamine supplementation has been shown to increase IQ levels in some mentally deficient children. L-Glutamine is brain fuel. It feeds the brain cells, allowing them to fire on all cylinders. A deficiency in L-Glutamine can result in “foggy thinking” and fatigue.

Individuals with “fibro fog” may benefit tremendously from this essential amino acid. The QXCI shows GABA helpful for “the electrical storms in the brain”, sometimes confused with ADD and ADHD, when it may simply be a amino acid deficiency. Even a small shortage of L-Glutamine will produce unwarranted feelings of insecurity and anxiousness. Other symptoms include continual fatigue, depression, and occasionally impotence.

Supplementing with GABA – Usually only a small dose of GABA is needed, 500 or 1000 mg, twice daily. Some individuals may need to take GABA 3 or 4 times a day. Like most amino acids , GABA needs to be taken on an empty stomach.

Don’t mistake glutamine for monosodium glutamate (MSG). MSG can also pass by the blood brain barrier and can cause many health problems, including headaches, short term memory loss, multiple sclerosis, Parkinson’s, Alzheimer’s, and dementia. MSG is a fake amino acid, with the same chemical structure as glutamine. Your brain cells don’t know the difference and will uptake MSG, especially when it is prevalent in the body (because of our

foods) and glutamine is lacking. If the “G” group applies to you, be sure to avoid all MSG products while supplementing with GABA. See attached page for additional MSG information.

The “D” Group – Dopamine

Please mark the items which apply to your present feelings:

- You lack pleasure in your life.
- You feel there are no real rewards in life.
- You have unexplained lack of concern for others, even loved ones.
- You experience decreased parental feelings.
- Life seems less “colorful” or “flavorful”.
- Things that used to be “fun”, aren’t any longer enjoyable.
- You have become a less spiritual or socially concerned person.

If three or more of the above apply, then read below.

The “D” Group – Dopamine is a neurotransmitter associated with the enjoyment of life, food, arts, nature, your family, friends, hobbies, and other pleasures. Dopamine is considered the “happy amino acid”. The popularity of cocaine (or chocolate) stems from the fact that it causes very high levels of dopamine to be released in a sudden rush. This creates a euphoric state. A dopamine deficiency can lead to a condition known as anhedonia.

Anhedonia is the lack of ability to feel any pleasure or remorse in life (lifeless). It also reduces the person’s attention span. For example, a person who has taken cocaine for some time will have used up most of his or her dopamine supply. Their attention span is often reduced to 2 or 3 minutes instead of the usual 50 to 60 minutes. Learning, for such a person, is nearly impossible.

Brain fatigue, confusion, and lethargy are all byproducts of low dopamine. The brain cells which “manufacture” dopamine use the amino acid L-Phenylalanine as the raw material. Like most cells in the hypothalamus, they have the ability to produce 4 or 5 times their usual output if larger quantities of the raw materials (amino acids and their co-factors) are made available through nutritional supplementation.

Supplementing with L-Phenylalanine – same as with “O” group

The “N” Group – Noriepinephrine

Please note the items which apply to your present feelings:

- You suffer from a lack of energy.
- You often find it difficult to “get going”.
- You suffer from decreased drive.
- You often start projects and then don’t finish them.
- You frequently feel a need to sleep or “hibernate”.
- You feel depressed a good deal of the time.
- You occasionally feel paranoid.
- Your survival seems threatened.
- You are bored a great deal of the time.

If three or more of the above apply, then read below.

The “N” Group – The neurotransmitter Norepinephrine, when released in the brain, causes feelings of arousal, energy, and drive. On the other hand, a short supply of it will cause feelings of a lack of ambition, drive and energy. It can even cause depression, paranoia, and feelings of apathy. Norepinephrine is also used to initiate the “flow” of adrenaline when you are under psychological stress. People under a great load of stress, or a continual stress loading of almost any size, often find their Norepinephrine levels too be too low.

This is most frequently detected by the feelings listed in the questionnaire you have just taken. The production of Norepinephrine in the hypothalamus is a 2 step process. The amino acid, L-Phenylalanine, is first converted into Tyrosine. The amino acid, Tyrosine, is then converted into Norepinephrine. In extreme cases L-Tyrosine is supplemented to increase Norepinephrine and Dopamine. However, if the levels of Tyrosine are not low, this can cause headaches. This is why I usually recommend L-Phenylalanine replacement therapy first.

Supplementing with L-Phenylalanine – same as with “O” group and “D” group.

As you can see, amino acids are a very important part of our emotional and mental health and brain function. Amino acids are also the building blocks of the body. Our bodies are constantly renewing and rebuilding. Amino acids and fatty acids are essential as tools for the body to regenerate healthy cells. I recommend that you take a combination amino acid complex also, when taking individual amino acids for better results, and to keep the body in balance.