

## NEUROTRANSMITTER RESET PROGRAM™

### HOW NEUROTRANSMITTERS ARE ASSOCIATED WITH VARIOUS CONDITIONS

#### Anxiety

Virtually all clinical reports on anxiety identify neurotransmitter imbalances to either the root cause or the symptoms of anxiety. Addressing neurotransmitter imbalances is a highly effective approach for successful clinical outcomes in terms of targeted treatment, cost and compliance. Of course, the physiological aspect is just the first stop of the treatment. Our motto is: Test Don't Guess.

#### Depression

According to National Institute for Mental Health, we write 254 million prescriptions a year on anti-depressants in the United States, alone. According to World Health Organization and National Institute of Health, by 2020 the second leading cause of medical disability will be depression. This tells us that utilizing a prescription based solely on vocabulary is outdated and unsuccessful. Of course, the physiological aspect is just the first step of the treatment. Our motto is: Test Don't Guess.

#### Obesity

With obesity rates skyrocketing, not to mention pre diabetes and diabetes, obviously what we are doing is not working. Neurotransmitters are chemical messengers that regulate many physical and emotional processes including cravings. Several Neurotransmitters can be involved including, but not limited, to serotonin which can symptomatically show as carbohydrate cravings. Often dopamine is involved because it is largely responsible for the pleasure/reward pathway producing cravings and/or addictive behaviors. Of course, the physiological aspect is just the first stop of the treatment. Our motto is: Test Don't Guess.

#### ADD/ADHD

Phenylethylamine (PEA) serves as a biomarker for ADHD, along with norepinephrine and dopamine. The thoughts with dopamine involve the dysfunction in the brain reward cascade, causing low dopamine.

## ALLERGIES

Histamines are chemicals that your immune system makes, and they are also measurable neurotransmitters. You've probably heard of antihistamines. They're medicines that are prescribed for allergy symptoms.

Histamines help your body get rid of something that's bothering you like an allergy trigger or an allergen.

Histamines start the process that tries to get the allergens out of your body or off your skin. They can make you sneeze, tear up, or itch, whatever route your body ties to use to get the job done. They are part of your body's defense system.

When you have allergies, some of your triggers, such as pollen, pet dander, or dust, they may seem harmless. However, your immune system sees them as a threat and responds accordingly.

Your body's intention is always to keep you safe and optimized. But its overreaction gives you those all-too-familiar allergy symptoms, which you then try to stop with an antihistamine.

So by measuring the histamine levels we see if that is the root cause of your body's overreaction to rid itself of allergens.

As always our motto is "test don't guess."

## STRESS

I believe stress to be the epidemic of the 21<sup>st</sup> century. Demands placed on us daily have accelerated faster than our body's ability to respond. As a result, we are looking at the symptomatic relationships of fatigue, anxiety depression, weight issues, addictions and more.

When a stress response is triggered, the HPA axis is stimulated to produce cortisol and DHEA, which initiates norepinephrine and epinephrine production. Initially, these neurotransmitter levels tend to be elevated – often causing a rise in neurotransmitters such as GABA. Additionally, cortisol is required in the conversion of norepinephrine to epinephrine, so a compromise in cortisol levels (as seen with chronic stress) causes an imbalance in the ratio between these two neurotransmitters.

There is a dynamic relationship between cortisol and serotonin wherein healthy adrenal function is dependent on balanced serotonin and healthy serotonin is dependent upon balanced adrenal function. Serotonin is involved in hypothalamic stimulus to facilitate pituitary release of ACTH, which, in turn, is necessary for the release of cortisol and DHEA. An insufficient supply of serotonin will contribute to an insufficient release of cortisol.

That got a little “sciency,” but my point is that there is always a delicate balance that the body creates to optimize and achieve homeostasis or balance. Bottom line is it’s an orchestra and each neurotransmitter plays a part.

## MENOPAUSE/LIBIDO

Menopause is a gradual process that may take up to 10 years to occur. The years leading up to menopause are known as peri-menopause. During the peri-menopausal years, progesterone levels decline significantly. While estrogen levels change as well, they rarely decline in balance with progesterone levels. This imbalance in

the decrease of estrogen and progesterone levels often leads to more estrogen in relation to progesterone and is commonly referred to as “estrogen dominance.”

Estrogen dominance, or progesterone insufficiency, is common during peri-menopause and may contribute to mood changes, hot flashes, memory loss, irritability, menstrual changes and more. Persistent estrogen dominance may be a risk factor for several diseases including estrogen-dependent cancers, osteoporosis, dementia and cardiovascular disease.

During menopause, the androgens testosterone and DHEA can either increase or decrease, resulting in symptoms such as belly fat, scalp hair loss, weight gain, low libido, burn out, and feelings of rapid aging.

Assessing and optimizing cortisol levels is an essential component to a successful transition to menopause. Cortisol levels can shift with sudden or persistent stress. Cortisol levels that are too high or too low may further compound the symptoms associated with menopause.

Changes in hormone levels have far reaching effects and can affect the neurochemicals that influence how we feel. As estrogen levels change, serotonin levels can be affected. As progesterone levels plummet, GABA levels may be altered. Hot flashes, night sweats, libido and more can be associated with changes in these neurotransmitters as well as dopamine, epinephrine and norepinephrine as much as changes in hormone levels.

And guys.....don’t think it’s just a woman thing. Andropause is the male menopause affecting the sex hormones, predominately testosterone leaving you with a low libido, possibly a low mood crying for perhaps the first time and gaining that belly fat.