

The Neuroscience, Inc. Lab Report

Interpreting the values on the Neuroscience, Inc. lab report is a complex task that is best carried out in conjunction with your healthcare practitioner. Depending on your symptomatic presentation, neurotransmitter values can be above or below the optimal range. It is important that the values be interpreted in light of your health concerns. Additionally, various medications and supplements can influence the laboratory values. Please discuss this with your healthcare practitioner in order to get the most information out of your test results.

Each Neuroscience, Inc. lab report contains your individual lab values as well as two distinct ranges to which the results can be compared. These include the:

- OPTIMAL RANGE**

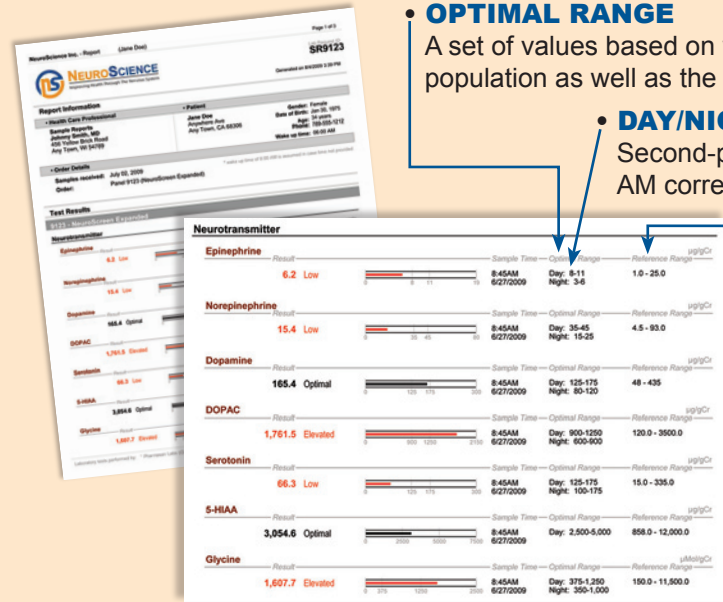
A set of values based on what has been observed in a “healthy” population as well as the opinions of the experts at Neuroscience, Inc.

- DAY/NIGHT RANGES**

Second-pass urine specimens collected in the AM correspond to the respective “Day” ranges. Conversely, specimens collected prior to bedtime or during the night correspond to the respective “Night” ranges.

- REFERENCE RANGE**

A set of values that represent what is observed in 90% of the specimens analyzed.



The Optimal Range is suggested for the interpretation of baseline values. If neurotransmitter values fall above or below the optimal range, your nervous system may be out of balance. Talk to your healthcare practitioner about options to address neurotransmitter balance.



Take Charge of Your Health

If you are struggling with a health concern, ask your healthcare practitioner to do a simple urinary lab test to measure your neurotransmitter levels.

If your neurotransmitters lack balance, ask about Neuroscience, Inc.’s natural, non-prescription approach to restoring neurotransmitter balance and supporting health.



Neurotransmitters 101

A Guide to Understanding the Role of the Nervous System in Health



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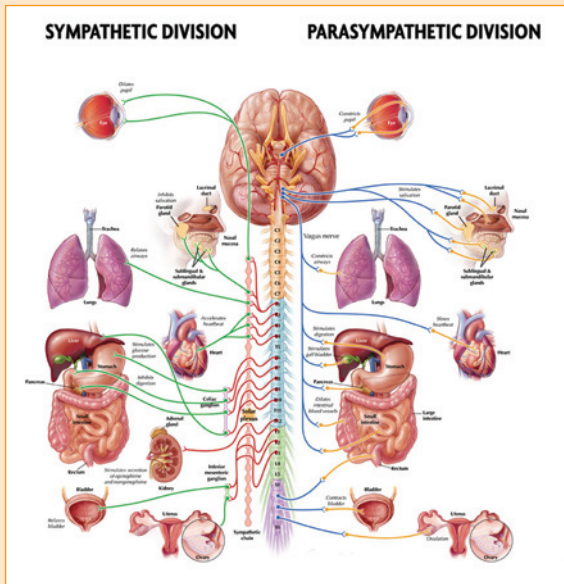
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Neurotransmitters' Role in Health

The human nervous system is one of the most complex systems in nature. It is responsible for coordinating thousands of processes, from muscle contraction to crying. The center of the nervous system is the brain, which contains over 100 billion specialized cells called neurons. The nervous system also contains very important chemical messengers called neurotransmitters. The brain uses neurotransmitters to tell your heart to beat, your lungs to breathe, and your stomach to digest. Neurotransmitters are also necessary for thought processes, emotions, and other essential body functions including sleep, energy, and fear.

The Nervous System



Clearly, a system with this much responsibility needs to function properly in order for a person to remain healthy. Unfortunately, the nervous system can be easily disrupted through a number of factors:

- Stress
- Poor diet
- Toxic chemicals
- Infections
- Genetics

These factors can cause the levels of neurotransmitters to become either too high or too low. Imbalanced neurotransmitter levels can lead to:

- Feelings of sadness
- Feelings of anxiousness
- Disrupted sleep
- Fatigue
- Behavioral problems
- Foggy thinking
- Headaches

The good news is that neurotransmitter levels can be measured, and, with the help of your healthcare practitioner, options for improving nervous system function can be discussed.

This brochure describes some of the roles of major neurotransmitters in your body. Please keep in mind that the neurotransmitter test is not diagnostic for any particular disease. Rather it is one of many tests your doctor can use to address your health concerns.

Clinical Correlations

Epinephrine, also known as adrenaline, is important for motivation, energy, and mental focus.

- | | |
|----------------------|-------------------------|
| ↑ High levels | ↓ Low levels |
| • Sleep difficulties | • Fatigue |
| • Anxiousness | • Lack of focus |
| • Attention issues | • Difficult weight loss |

Norepinephrine, also known as noradrenaline, is important for mental focus and emotional stability.

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|-----------------------|----------------------|
| ↑ High levels | ↓ Low levels |
| • Anxiousness | • Lack of energy |
| • Stress | • Lack of focus |
| • Hyperactivity | • Lack of motivation |
| • High blood pressure | • Low mood |

Dopamine is responsible for feelings of pleasure and satisfaction, also muscle control and function.

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|----------------------------|---------------------|
| ↑ High levels | ↓ Low levels |
| • Poor intestinal function | • Addictions |
| • Developmental delay | • Cravings |
| • Attention issues | |

DOPAC is a critical metabolite of dopamine.

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|-----------------------|---|
| ↑ High levels | ↓ Low levels |
| • Hyperactivity | • No associated clinical symptoms to date |
| • Focus issues | |
| • Stress | |
| • Developmental delay | |

Serotonin plays important roles in the resolution of mood, sleep, and appetite.

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|----------------------|-------------------------|
| ↑ High levels | ↓ Low levels |
| • SSRI medications | • Low mood |
| • Stress | • Sleep difficulties |
| | • Uncontrolled appetite |
| | • Headaches |
| | • Hot flashes |

5-HIAA 5-Hydroxyindoleacetic acid is the primary metabolite of serotonin involving monoamine oxidase A (MAO-A) and aldehyde dehydrogenase.

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|-------------------------|----------------------|
| ↑ High levels | ↓ Low levels |
| • Intestinal complaints | • Impulsivity |
| | • Sleep difficulties |
| | • Low mood |
| | • Cravings |
| | • Urges |

Glycine, like GABA, helps calm and relax the body.

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|----------------------------|---|
| ↑ High levels | ↓ Low levels |
| • Anxiousness | • No associated clinical symptoms to date |
| • Low mood | |
| • Stress-related disorders | |

Taurine important for proper heart function, healthy sleep, and promoting calmness.

- | | |
|----------------------|-----------------------------|
| ↑ High levels | ↓ Low levels |
| • Hyperactivity | • Severe hyperactivity |
| • Anxiousness | • Severe anxiousness |
| • Sleep difficulties | • Severe sleep difficulties |

GABA is the primary inhibitory neurotransmitter in the brain and is necessary to feel calm and relaxed.

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|----------------------|-----------------------------|
| ↑ High levels | ↓ Low levels |
| • Hyperactivity | • Severe hyperactivity |
| • Anxiousness | • Severe anxiousness |
| • Sleep difficulties | • Severe sleep difficulties |

Glutamate is the body's primary excitatory neurotransmitter, necessary for learning and memory.

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|----------------------|-----------------------|
| ↑ High levels | ↓ Low levels |
| • Anxiousness | • Fatigue |
| • Low mood | • Poor brain activity |
| • Seizures | |
| • An immune response | |

PEA is important for focus and concentration.

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|----------------------|-------------------------------|
| ↑ High levels | ↓ Low levels |
| • Mind racing | • Difficulty paying attention |
| • Sleep difficulties | • Difficulty thinking clearly |
| • Anxiousness | • Low mood |

Histamine helps control the sleep-wake cycle as well as energy and motivation.

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|----------------------|---------------------|
| ↑ High levels | ↓ Low levels |
| • Allergic responses | • Fatigue |
| • Sleep difficulties | |

Creatinine is used to calculate neurotransmitter levels.

For more information on neurotransmitters, visit www.neuroscienceinc.com