



NATURALLY
RECOVERING
AUTISM

NEUROTRANSMITTERS

#30DAYSOFAWARENESS

WHAT IS PANS/PANDAS?

Neurotransmitters can be thought of as the brain's messengers. They are chemicals made by the body, largely the digestive tract, or in the brain. They transmit messages vital to our brain's ability to function properly, our body's muscle movements, and more. They regulate our moods, appetite, and sleep. They even control our body's response to pain. If the volume of these chemicals is too low or too high, the message is not sent properly and we experience symptoms.

When neurotransmitter levels are too high or too low, they are felt by imbalances of different parts of the brain and cause disturbances in our ability to function properly. The level of deficit corresponds to the level of the disorder. For example, if your serotonin is a little bit low, you may have mild depression. If it is extremely low, you might be suicidal.

Neurotransmitters that are in the brain are mostly made from amino acids. Amino acids are made from proteins, so protein foods will raise levels of neurotransmitters in the brain as long as we are assimilating our food properly. Most neurotransmitters are made in the gut.



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It's important to know why your child may be behaving in certain ways or have difficulty either getting motivated or calming down. Below are some to pay special attention to.

Serotonin

Serotonin is the neurotransmitter most involved in the cause of multiple medical and psychiatric problems. It is greatly affected by inflammation and up to 95% of it is made in the gut, so the gut must be working properly. It mainly affects mood, sleep and appetite.

Low levels of serotonin may contribute to:

Moodiness, including irritability and depression
Trouble sleeping
Appetite control (lack of satiety)
Night terrors
Poor digestion
Migraine headaches

Dopamine

Dopamine is essential in attention, focus, and impulse control. Low dopamine is often a contributor to trouble with handwriting, and ability to organize thoughts or plan future events , extremely low motivation and drive, or extreme hyperactivity.



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Signals that dopamine is low:

Trouble focusing
No sense of pleasure or reward
Inattentive
Low motivation
Difficulty with follow through

Too much dopamine can be a problem, just as too little can be a problem. Too much dopamine with phenylalanine can cause behavioral disorders such as schizophrenia and seizures.

Signals that dopamine is too high:

Hyperfocus
Stuck in negative behavior patterns (the grudge holder)
Epinephrine/Adrenaline
Epinephrine is also referred to as adrenaline. It is both a neurotransmitter and a hormone. It has more of an affect on your heart in the fight or flight response.

Norepinephrine

Norepinephrine is also both a neurotransmitter and a hormone. It is a stress hormone involved adrenal function. Used in the fight or flight response it assists more with blood vessels in regulating blood pressure and blood glucose (blood sugar) levels. It also helps with attention and focus.



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Oxytocin

Oxytocin regulates neurotransmitters in the central nervous system. It is responsible for the ability to bond to another as in maternal bonding, trust, and empathy, also social recognition, and regulating anxiety.

In Summary

Some neurotransmitters are in excess, and more commonly, others are deficient. Many aspects do overlap and each needs to be addressed. MRIs, EEGs, and blood tests will likely all come up normal.

The behavior of the brain is greatly affected by chemistry. I learned through personal experience with my own son the severity at which neurotransmitters, the brain's messengers, affect the brain. Along with toxic impact, the brain's chemistry must be balanced in order for it to be capable of functioning properly.

This is done through:

Healing the biological system including the gut

Detoxification.

Clearing infections in the body.

Natural brain support and repair.

