

## CASE STUDY

# Helping Remi with Neurotransmitter Imbalance

### PATIENT OPPORTUNITY

Organic Acids Testing (OAT) provided a general overview of nutritional and metabolic health pathways. DNA Methylation Pathways provided insight into genetic SNP's that indicated cofactors that may be inhibited and how those could be affecting neurotransmitter function and what could be done to support with an individualized nutrition and supplementation protocol based on the finding to help with desired health outcomes.

### APPROACH

We incorporated an individualized nutrition plan to include foods with key minerals/vitamins to support underlying deficiencies, outlining certain lifestyle modifications like outside time and exercise daily to improve neurotransmitter production. We added specific supplementation such as specific forms of B vitamins and minerals to correct deficiencies found in testing, and specific amino acids were used to help with anxiety and focus if needed while she was transitioning off her medications with her PCP.

### RESULTS

Initially, she struggled with implementing the supplements but we were able to navigate that with changing forms from chewables to capsules, etc. and then she began to feel better within the first few weeks and continued to improve over a few months to where she is now. Utilizing methylated B vitamin supplementation along with amino acids to help with low serotonin production seemed to help tremendously and rather quickly which encouraged her to continue since she could see the change in how she felt. Testing for specific gene mutations that can inhibit the proper uptake or absorption of many key vitamins/nutrients is very valuable when developing an individualized protocol for those who have multiple health concerns. Being able to map out pathways to show individuals what is going on in their body systems increases compliance tremendously – helping them to understand why a protocol would be beneficial. I feel like the methylation pathways test from Mosaic Diagnostics helped us map out a plan going forward to get the best outcome, allowing specific supplementation based on the findings which proved to be more effective than generalized suggestions only.



Happy Spurling,  
BCHHP, NHP, CNC

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### ABOUT REMI

11-Year-Old Female

#### Symptoms:

ADHD

OCD

Bipolar Disorder

Behavioral Issues

"Remi was taking multiple medications, including Prozac and Adderall. She struggled with behavioral issues, fatigue, and focus, prompting her mother to seek nutritional and supplementation support to address the root cause."