

Homocysteine Biomarker For Methylation Issue by Kendal Stewart, M.D.

Homocysteine is an intermediate amino acid byproduct that has no functional effect on its' own. It is found in the methionine pathway that has a purpose in methylation of DNA and the production of glutathione. It has become an excellent intermediate marker for identification of patients at risk for methylation defects. When studying homocysteine, you must be aware that there are two or more distinct genetic defects that affect homocysteine. One, the MTHFR defect, when present by itself with no additional genetic differences, will create a high homocysteine level. The other defect, which is most common in Neuro-Immune Syndromes, is the cystathionine beta synthase overexpression or an abnormality in hydrolysis of adenosine, which creates a low homocysteine. By using homocysteine, you can effectively determine the severity of the genetic expression.

With that said, homocysteine is not an excellent indicator of treatment efficacy but a biomarker to know that your patient has a methylation issue. In my experience with over 4000 patients, as well as, in Dr. James' study, the ability to raise homocysteine is quite difficult. In reality, raising homocysteine is the least of our worries with these children or adults because it only represents one of the many abnormalities found in the methylation cycles throughout the body.

For practical terms, we are not using folic acid or B12, we are using methyl folate (5-MTHF) and methyl B12 that is found in the Neuro-Immune Stabilizer Topical Cream created by Neurobiologix. The methyl forms of these vitamins are distinctly different in the fact that methyl forms are fat soluble. Additionally, we use a very low level of B6 for other purposes that support homocysteine. Please do not confuse these forms. Methyl folate has many other important purposes that are essential to recovering these patients from neuro-immune syndromes; 1) neural healing and repair, 2) production of dopamine, 3) mitochondrial function, 4) growth hormone function, 5) T cell function and lastly 6) toxin clearance.

**For product information and videos go to www.neurobiologix.com
For questions or additional information please email info@neurobiologix.com.**