

WHY METHYLATED FOLATE?

By Bradley T. Wajda, D.O.



Folate (vitamin B9) determines our ability to metabolize our neurotransmitters (serotonin, dopamine, and norepinephrine). Some people confuse folic acid with folate; however, folic acid is synthetic and requires separate metabolism by the liver before we can even begin to utilize it. When it comes to folate metabolism, MTHFR stands for methylenetetrahydrofolate reductase. It is an enzyme that is critical in processing folate into the useable form that we all need, 5-MTHF (5-methyltetrahydrofolate). The enzyme is the rate-limiting step (the “bottleneck” if you will) that controls making the 5-MTHF from folate. 5-MTHF is important because it converts a bad amino acid (homocysteine) into something good...SAME (S-adenosyl-methionine). SAME is THE cofactor in metabolizing the neurotransmitters.

Homocysteine is THE culprit in cardiovascular disease. We have all heard about the 40-year-old that exercised daily, ate healthy, never drank, and never smoked; however, they dropped dead while out on their 5 mile run. That is usually caused by elevated homocysteine (and occasionally by other conditions like idiopathic hypertrophic subaortic stenosis). High homocysteine levels promote clotting (strokes and heart attacks).

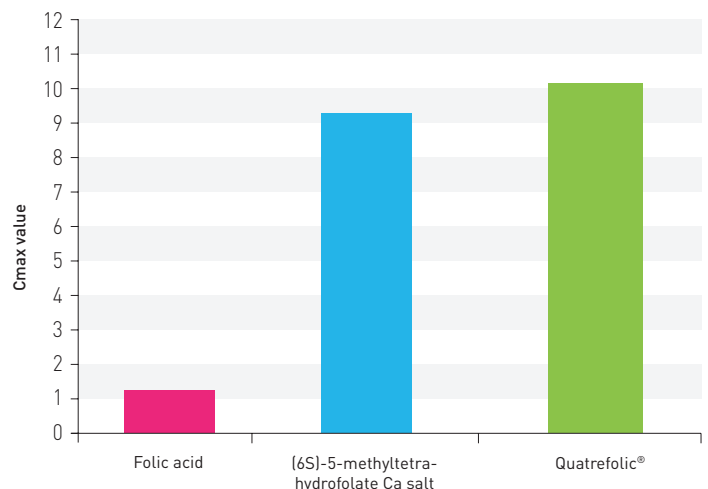
If a person has a single mutation (heterozygous) of the MTHFR gene, then they only make 60% of the enzyme they need. This means that they only clear 60% of the homocysteine, make 60% of the SAME, and metabolize 60% of their neurotransmitter potential. These people don't experience a significant cardiovascular risk; however, they do have many psychiatric issues – issues that don't respond well to psychiatric medication because medications target the neurotransmitters that they are only metabolizing at 60%.

If a person has a double mutation (homozygous) of the MTHFR gene, then they only make 20% of the enzyme they need. This means that they only clear 20% of the homocysteine, make 20% of the SAME, and metabolize 20%

of their neurotransmitter potential. These people experience a MARKED cardiovascular risk along with many psychiatric issues – issues that don't respond to psychiatric medication because medications target the neurotransmitters that they are only metabolizing at 20%.

Giving the 5-MTHF compensates for the mutation; thereby, eliminating the cardiovascular risk and resolving the psychiatric issues. In the general population approximately 9% have a homozygous mutation and 30% have a heterozygous mutation.

Quatrefolic® Methylfolate: The Most Bioavailable B9



Cmax indicates peak folate levels in the bloodstream. Quatrefolic methylated folate is easier for the liver to metabolize.

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*These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.

Scientific Research for Further Reading

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