

Drugs, Medications & Methylation & MTHFR

Folate Inhibitors

Which drugs affect folate status?

Some drugs can inhibit enzymes which are involved in converting folic acid to its more active form tetrahydrofolate. These can therefore increase MTHFR health problems.

These drugs include:

- Methotrexate (Anti-rheumatic drug which is sometimes prescribed for Rheumatoid Arthritis)
- Some antibiotics (trimethoprim, tetracycline)
- Sulfasazine (For ulcerative colitis)
- Oral Contraceptive Pills

Other drugs reduce serum and tissue concentrations of folate by different mechanisms and include:

- Antacids, H2 blockers, proton pump inhibitors
- Antiepileptics (carbamazepine, phenytoin, lamotrigine, primidone, valproic acid, phenobarbital)
- Cholesterol lowering drugs
- Non-steroidal anti-inflammatory drugs (NSAIDS)
- Some diuretics (Triamterene)

Drugs, medications & nutritional supplements that affect the methylation cycle

Several drugs, medications & nutritional supplements can interfere with and affect the methylation cycle. These can therefore increase MTHFR health problems. These include:

- Antacids (Deplete vitamin B12)
- Cholestyramine (deplete cobalamin and folate absorption)
- Colestipol (decreases cobalamin and folate absorption)
- Methotrexate (inhibits DHFR - Neurotransmitter pathway)
- Nitrous oxide (inactivates MS)
- High dose niacin (depletes SAME and limits pyridoxal kinase = active vitamin B6)
- Theophylline (limits pyridoxal kinase = active vitamin B6)
- Cyclosporin A (decreases renal function and increases Hcy)
- Metformin (decreases cobalamin absorption)
- Phenytoin (folate antagonist)
- Carbamazepine (folate antagonist)
- Oral Contraceptives (deplete folate)
- Antimalarials JPC-2056, Pyrimethamine, Proguanil (inhibits DHFR - Neurotransmitter pathway)
- Antibiotic Trimethoprim (inhibits DHFR - Neurotransmitter pathway)
- Ethanol or Alcohol (depletes folate & cobalamin)
- Bactrim (inhibits DHFR - Neurotransmitter pathway)
- Sulfasalazine (inhibits DHFR - Neurotransmitter pathway)
- Triamterene (inhibits DHFR - Neurotransmitter pathway)

Supplements

- Folic acid (interferes with DHFR or folate metabolism)
- Vitamin B12 (cyanocobalamin form - may contribute to conditions that MTHFR patients have, may interfere with potassium leading to hypokalemia)