

# Methylation

**From: *Primal Dentistry; Less is More***

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The process of methylation helps you respond to the demands of your body and environment. Every cell of your body needs to do it well all the time. If you don't methylate well, you don't function well. Methylation is the critical process of adding or substituting **methyl groups** (CH<sub>3</sub>) to various other compounds like proteins, fats and your genetic DNA strands. Demethylation subtracts the group. Think of methyl groups as little on/off switches continuously firing all over your body, driving almost every vital body process. You are methylating right now to some degree, building your brain's chemical messengers like dopamine and serotonin, signaling your genes to turn on and off, processing hormones, packaging toxins for elimination and so on.

Normal methylation is critical to:

1. Fight infections like gum disease
2. Think, learn and remember well
3. Maintain positive mental health
4. Bring a fetus to full term without neural tube or other midline defects [Note: People with tongue ties may well want to check for the genetic aberration that makes it difficult to methylate well.]
5. Avoid chances of developing autism
6. Increase mitochondrial numbers and each mitochondria's ATP energy output
7. Guide appropriate sequential shifts in stem cells
8. Avoid genetic problems – making and repairing DNA (and tRNA)
9. Regulate both genetic expression and protein making ability
10. Break down and excrete hormones
11. Make CoQ10 (ubiquinol form)
12. Create and mature and white blood cells as well as blood platelets
13. Help with liver detoxification
14. Develop the nervous system to avoid problems like bedwetting
15. Reduce chances of diabetes
16. Make the protective wrapping called myelin around your nerves
17. Reduce (inflammatory) homocysteine levels

*Primal Dentistry* offers solutions for optimizing methylation pathways whether you have aberrant genes or lifestyle has limited the pathway.

## Lifestyle Nails in the Methylation Coffin

1. Alcohol Consumption
2. Systemic Candida
3. Cholesterol-binding drugs such as Cholestyramine or Colestipol
4. Crohn's Disease, Celiac, Microbial GI tract Imbalances, Poor Diet, Irritable Bowel Syndrome, Bulemia or Anorexia.
5. Antibiotics
6. Birth control pills
7. Estrogen replacement drugs
8. Blood Pressure pills like Ace inhibitors
9. Corticosteroids
10. Green Coffee Bean Extract
11. High simple carbohydrate intake
12. Ibuprofen
13. Limited red meat intake
14. Limited vegetable intake
15. Lyme Disease
16. Metformin
17. Methotrexate
18. High dose Niacin or prescription Slo-Niacin or Niaspan
19. Proton Pump Inhibitors (PPI) like Nexium, Prevacid and Prilosec
20. High stress levels
21. Sulfa drugs like Bactrim, Septra, or Dyazide
22. Tylenol
23. Xenoestrogens (Fake estrogens like what leaches from plastics and all synthetic fragrances) and other Environmental Toxins
24. Multiple Chemical Sensitivities
25. Hypothyroidism
26. Nitrous Oxide