

I HAVE MTHFR

Now what?

WHAT TO DO WHEN YOU DONT KNOW
WHAT TO DO

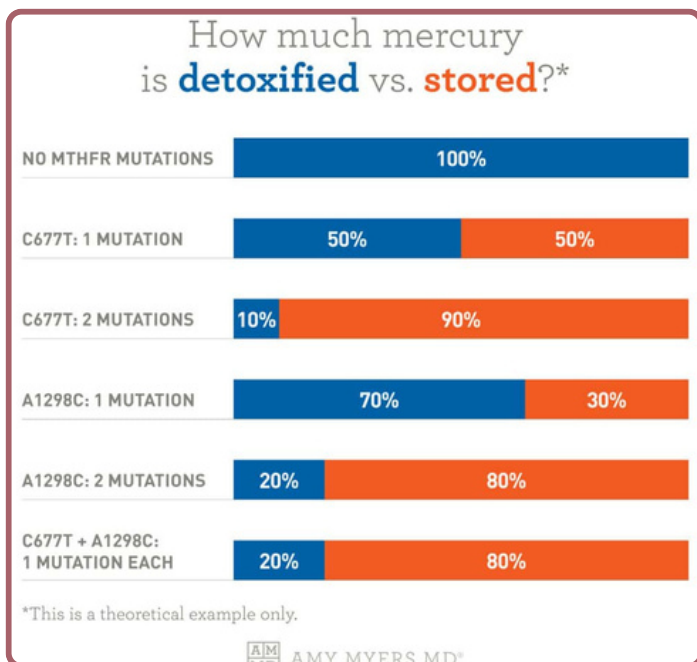


BARBARA WIBE & KELLY THOMPSON

PART 1: THE MTHFR GENE

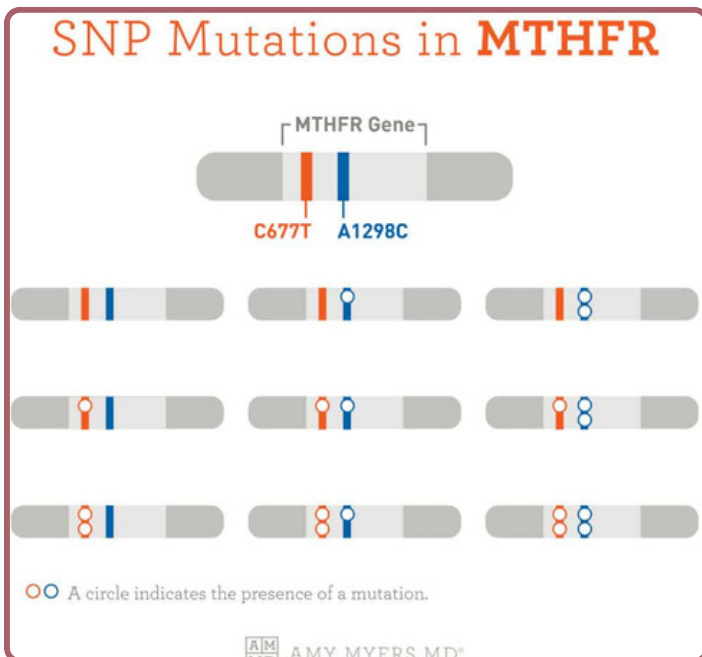
WHAT IS THE MTHFR GENE?

A major underlying cause of our chronic health problems, MTHFR looks like a curse word, but it stands for Methylene-tetra-hydro-folate reductase. When you have an MTHFR gene variant, your body misreads the instructions about producing the methylenetetrahydrofolate enzyme, resulting in a lack of function. This is important because people with MTHFR gene variants have an enzyme deficiency and are disadvantaged by having a reduced ability to methylate, a critical process in the body. **Methylation is a biochemical conversion process that occurs at a cellular level, impacting nearly every bodily function and occurring in every cell in our body.** The effects of this can vary greatly depending on which MTHFR variant you carry, and your current toxic load. See sample below:



WHAT ARE THE COMMON MTHFR VARIANTS?

The two most commonly studied variants (also called SNP's or Snippets) of the MTHFR gene are MTHFR c677t and MTHFR a1298c. You can have one copy of the gene, called heterozygous, or two copies of the gene, called homozygous. One of each gene is also possible, called compound heterozygous. Even more rarely occurring would be two copies of each gene, which would be called compound homozygous. This translates into prohibited enzyme production by only 10% for some people, while others enzyme levels are affected by up to 90%. It all depends on which variants you carry, so it's very important to get tested! You only need to get tested once because the genes you're born with are the genes you die with.



PART 2: METHYLATION

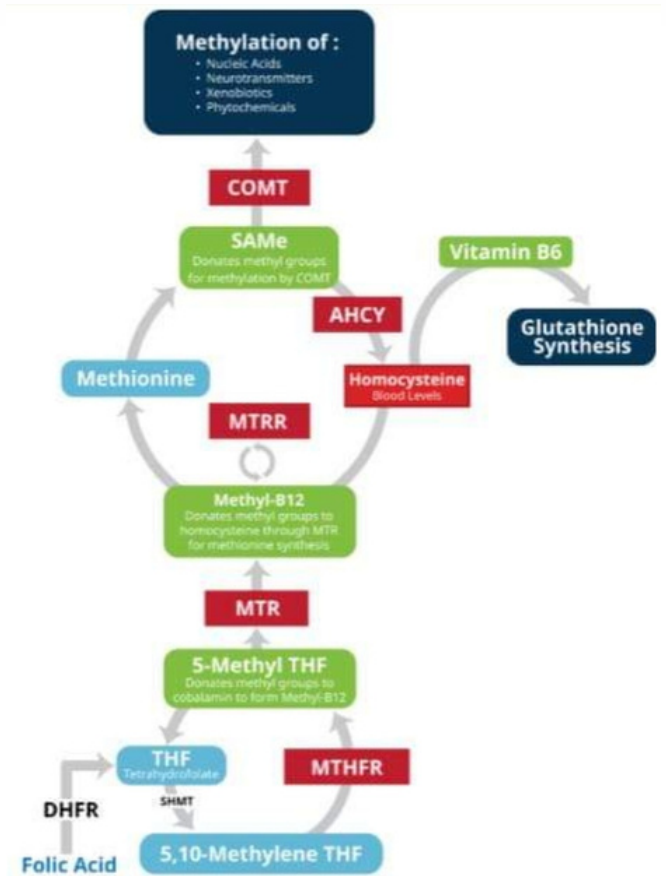
Methylation is a biochemical conversion process that occurs at a cellular level, impacting nearly every bodily function and occurring in every cell in our body.

METHYLATION PLAYS A PART IN:

- Converting Homocysteine to Methionine
- Activating B Vitamins to Usable Form
- Neurotransmitter Production & Breakdown
- Mental Health
- Preventing Neurological Disorders
- Energy Metabolism
- Cognitive Performance & Learning
- Memory
- Muscular & Athletic Performance
- Cancer Risk
- Cellular Repair
- Synthesizing Nucleic Acids
- Repairing DNA and RNA
- Regulating Gene Expression
- Converting Amino Acids
- Brain Function
- Immune System Function
- Blood Cell Function
- Detoxifying Metals
- Detoxifying Chemicals
- Detoxifying Hormones
- Glutathione Production
- Histamine Breakdown
- HOMOCYSTEINE CONVERSION: Excess homocysteine means excess inflammation. When homocysteine rises in the blood, it becomes one of the most inflammatory compounds in the body. This can lead to hyperhomocysteinemia, cardiovascular diseases, neurodegenerative issues, and neural tube defects.

A NOTE ON ENERGY METABOLISM: Dr. Dan Purser says that non-carriers of MTHFR can convert nutrients into 32 parts of energy, called ATP. However, those with MTHFR variants can only convert nutrients into between 6-22 parts of ATP, depending on which variant(s) you carry. Dr. Purser insists that this is why so many MTHFR carriers have Chronic Fatigue Syndrome and/or Fibromyalgia.

THE METHYLATION CYCLE & GENES AFFECTING IT



THE DIFFERENCE BETWEEN UNDER vs. OVER METHYLATING?

It is important to note that those with MTHFR can be either UNDER-methylators or OVER-methylators. Some MTHFR carriers swing back and forth between under-methylation and over-methylation. This can be seen in how a child behaves and may have a direct effect on how your body processes homocysteine. Additionally, a child's ability to follow instructions may be directly related to their dopamine, glutamate, and histamine levels, rather than their willingness to cooperate. Because of this, methylation testing may be important to do before supplementing with B vitamins. Even though the methylation cycle is using methylfolate, supplementing with methylfolate is not always the best answer.

★ **Signs of OVER-methylation:** People who are experiencing over-methylation are generally very anxious. Children are usually hyper or exhibit signs of ADD/ADHD. This is because overmethylation can create high levels of dopamine, norepinephrine, and epinephrine in the brain. In general, your neurotransmitter activity is strongly associated with your ability to use methyl groups appropriately. This is why if you're struggling with any mental health disorders, it's a good idea to look into your methylation potential. Addictions usually include alcohol, benzodiazepines, and downers.

★ **Signs of UNDER-methylation:** Under-methylation is associated with a range of physiological and psychiatric disorders such as migraines, allergies, sleep disruption, mood regulation, memory problems, depression, and schizoaffective or bipolar disorders. Many under-methylators display 'Type A' personality traits. They are highly motivated, competitive, perfectionist, high achieving, and frequently have successful careers. They appear to be in good health. On the other hand, undermethylation can also be associated with high inner tension, depression, and obsessive-compulsive tendencies. Addictions usually include amphetamines, sugar, and stimulants.

PART 3: SIGNS & SYMPTOMS

MTHFR SIGNS IN CHILDREN



1. SUGAR BUG

A blue vein is visible on the bridge of the nose between the eyes



2. STORK BITE

A flat pink birthmark on forehead, eyelids, nose, upper lip, or back of neck.



3. SACRAL DIMPLE

An indentation on the lower back located just above the buttocks



4. TONGUE TIE

The short tight band of tissue tethering the tongue to the floor of the mouth



5. LIP TIE

Tight band of tissue that connects the lip to the gum on top and/or bottom lip.



6. ANGEL KISSES

Red birthmark on eyelids, forehead, nose, or upper lip, disappears with age



7. HEMANGIOMA

Also known as a strawberry mark, raised red vascular tumor, usually benign



8. CLEFT PALATE/LIP

A common birth condition presenting as openings or splits in the mouth or lip



*Remember that there is a difference between the physical signs and the manifestation of symptoms of disease. Let's break it down:

SYMPTOMS OF MTHFR IN CHILDREN

- ADD or ADHD
- Autism / Stimming
- Birth Defects
- Bowel Issues / Constipation / IBS
- Developmental Delays
- Emotional Dysregulation
- Food Aversions
- Food Sensitivity
- Heavy Metal Poisoning
- Hypersensitivity
- Midline Defect
- Neural Tube Defect
- Sensory Processing Difficulty
- Speech Delay

WHO HAS THE MTHFR GENE & HOW TO TELL?

Anywhere between 40-60% of people have an MTHFR variant depending on which study is referenced. While the symptoms and severity of your MTHFR gene's physical manifestations will vary depending on which variant you have and how many copies you carry. The only real way to be sure if you're a carrier is to get tested. Environmental exposures, toxin load, stress load, water, and diet ALL play a large role in how this gene expresses itself. Testing positive for an MTHFR variant does not signify a manifestation of symptoms will be absolute.

SYMPTOMS OF MTHFR IN TEENS AND ADULTS

- Abnormal Blood Clotting
- Addiction
- ADD or ADHD
- Anxiety / Panic Disorder
- Autoimmune Disease
- Bipolar Disorder
- Blood Clotting Issues
- Cancer
- Cardiovascular Disease
- Chronic Fatigue Syndrome
- Depression
- Fibromyalgia / Copper Imbalance
- Hormonal Imbalance
- Hyperhomocysteinemia
- IBS / Crohn's Disease / Leaky Gut
- Infertility / Pregnancy Loss
- Mental Health Issues
- Migraines
- Mood Disorders
- Neurological Disorders
- OCD
- PANDAS
- POTS
- Stroke

PART 4: TESTING & LABS

MTHFR GENE TEST for METHYLATION & DETOXIFICATION ABILITY

Everybody, at least once in their life, should get a genetic methylation test. You'll only need to do it once because the genes you're born with, are the genes you die with. Remember it's how we interact with our environment that dictates how those genes will express themselves. There are several ways to get tested:

- **FREE:** Run your raw data file from Ancestry.com or 23andMe.com. You can request the file by emailing the company if you don't have access to download it. Here are the instructions, <https://www.tiktok.com/t/ZT8WQv29k/>, and here is the link <https://geneticgenie.org/>
- **COPAY:** Ask your doctor to run the MTHFR gene test for you and bill your insurance. Some doctors/insurance companies have no problem doing this for the cost of your copay, if any.
- **\$109:** Empower DX will send you a Positive/Negative test for MTHFR c677t or a1298c gene variant ONLY. This is a great option if you are on a budget or in a pinch and need answers. It takes about 1-2 weeks for results. <https://amzn.to/442obSH>
- **\$199:** MaxFuntion Panel by MaxGen Labs ****BEST DEAL**** This panel will give you 15 pages of nutritional information including predisposition to Inflammation, detoxification, histamine, vitamins A & D, and more. You get MTHFR results & the additional SNP's needed to keep on top of your health. <https://www.maxgenlabs.com?aff=277>

- \$349: The Works Panel by Max Gen Labs. Another amazing product that will provide an additional 180 and includes 3 panels; MaxFunction, MaxFood & MaxFitness Panels. Click the test to see a sample report.
<https://www.maxgenlabs.com/?aff=277>
- \$299 - MethylDetox by Ways2Well with Brigham Buhler, includes a consult.
<https://ways2well.com/product/methyldetox>
- \$600 - 10xHealth with Gary Brecka, Human Biologist
• https://10xhealthnetwork.com/products/10x-health-gene-testing-kit?utm_source=maverick
- \$823-\$1062 - Sabre Sciences HPA Panel (Methylation Testing) plus two consultations, Order Here -
<http://straightnutrition.com/shop/neurotransmitter-remediation/>

ARE THERE OTHER GENE SNPs TO CONSIDER WHEN GETTING TESTED?

By choosing the MaxFunction Panel you'll get 2 pages of additional SNPs tested. You'll be able to see what MTHFR gene SNPs you carry and info about other genes that are affecting our health and methylation. When Methylation is the goal, you'll want to look at gene SNPs; MTR, MTRR, COMT, and AHCY in addition to your MTHFR status. Also notable is CBS.

HAIR ELEMENTS TEST for HEAVY METALS AND MINERALS

WHY DO I NEED A HAIR TEST AND WHAT WILL IT TELL ME?

A hair follicle test is the best way to check your current toxic load. The other option is to collect ALL of the urine for 24 hours. But if your child is in diapers, this may not be a viable option. It's much easier to take a small clip of hair and send in the sample. The envelope contains a way to make sure you gather enough hair. It's overall very easy.

HOW DO I ORDER A HAIR FOLLICLE TEST KIT?

Use our link to order your Doctors Data Hair Elements Testing Kit. Just collect a small sample of hair and mail the kit back in. The results are emailed a week or two later. Order your kit here: <https://amzn.to/3JaWOhq>

NUTRIENT DEFICIENCY TESTING for HOW TO SUPPLEMENT VITAMINS & MINERALS

BLOOD TESTING

A great starting point is to request a blood test from your primary care doctor. You can ask for a vitamin & mineral panel. Make sure it covers vitamins A, B, C, D, E, & K and all of the Macro-Minerals. You can also request tests for homocysteine, histamines, and/or hormones. Usually, your copay will cover the cost of all of the panels combined at one laboratory blood draw visit.

INTRACELLULAR BLOOD TESTING

This is the most effective way to test for nutrient deficiency because it gets a read on what's going on inside the cell at the mitochondrial level. The results can be totally different than the regular blood test. Get this test from Dr. Purser here <https://danpursermd.com/genetics-testing>

PART 5: SUPPLEMENTS

THE ROOT CAUSE OF ALL DISEASE:

None of the nutrients that we put into our bodies stay in the raw form in which they entered. “Everything needs to be processed, refined, and converted. It’s when we can’t make this conversion that we end up with nutrient deficiencies. These deficiencies lead to diseases. Let’s look at plants. If there is an issue with the leaf of the tree, the arborist tests the soil for nutrients. Then, they balance the soil and the plant heals itself. Much like the human body, the plant is constantly trying to maintain homeostasis and it can only do so for so long without proper nutrients. This is so important because our soil and foods are so depleted in nutrients. It’s the root cause of all of our *dis-eases*.

GENETICALLY INHERITED DISEASES

There are a lot of misconceptions about genetically inherited diseases and where they come from. We say that things are inherited and passed on from one generation to the next. But, ***what we inherit is the inability to refine the raw materials. This then leads to the deficiency and then the diseases that come from being deficient. Add to that, environmental factors and we have an absolute recipe for disaster.*** We blame aging and genetics for so many diseases. We really just need the raw materials so our body can heal itself.

ORGANICS & PROCESSED FOODS

The first place to start detoxing is with your food choices. Switch to grass-fed, organic, non-fortified, non-enriched foods. The foods that contain folic acid are also the same foods that contain glyphosate. White bread, pasta, cereals, crackers, cookies, and cakes have all been fortified and enriched with folic acid. This directly affects our kids' behavior. Watch what you feed your kids for breakfast and then watch how they react. The folic acid amps up the mind. Then they want to give your kid stimulants to match the body to the mind. Try methylating before pharmaceuticals and synthetics. Start with raw materials and figure out what could be missing to cause this issue. You'll notice the difference in your mood, brain fog, and sleep.

DO I HAVE THE CORRECT VITAMINS?

If you are taking vitamins, just for the sake of taking vitamins, you're missing the goal and probably NOT getting everything your body needs to work efficiently. When you supplement for deficiency, you're targeting exactly what you need and you'll end up seeing results. Check your flintstones vitamins, your gummies, and even your shake powders to make sure they all contain the active form of B Vitamins. Always make sure you're getting the active, bio-available, or methylated form of your vitamin, and avoid the synthetic version.

VITAMIN B9 - FOLATE vs. FOLIC ACID

Folate comes in several forms and is essentially the vitamin B9. The popular supplement known as folic acid is the synthetic form of folate and is not able to be broken down into a usable form by MTHFR carriers.

- Folate is Vitamin B9 = Comes from food. Folate is found mainly in dark green leafy vegetables, beans, peas, nuts, eggs, and liver. It is important in red blood cell formation and for healthy cell growth and function. The nutrient is crucial during early pregnancy to reduce the risk of birth defects of the brain and spine.
- Folic Acid = A synthetic form of Vitamin B9 that is added to almost all enriched processed foods, supplements, and baby formula. Folic acid fortification may lower total homocysteine concentration, and may mask vitamin B12 deficiency. Folic acid can become toxic to those with MTHFR mutations as they are ill-equipped to process it. [99] Try to avoid this form of folate.
- Methyl-folate, or 5-MTHF, or L-5-MTHF, or L-5-Methylfolate, Calcium 5-Methyltetrahydrofolate = Active form of folate. According to Dr. Purser, 800mg/day is a good starting point until you feel like you're over-methylating, then back down to 100 mg/day. Prevents neural tube defects. Aids in the adhesion of the egg to the uterus. Can help depression. Can very often restore gut motility. Can reduce catecholamines in the urine. Try to always use this form or another active form of folate.

Folinic Acid, or 5-Formyl Tetrahydrofolate, Calcium Folate = Another active form of B9 and one of the natural forms of folate found in foods. This is another supplement option if methylfolate is too much for you and/or you're experiencing signs of over-methylation.

VITAMIN B12

Just like with folate you'll want to make sure your supplements include the active form of Vitamin B12.

- USE Methylcobalamin or Hydroxymethylcobalamin = This is the bioavailable and active form of B12
- AVOID using Cyanocobalamin = This is a cyanide-based synthetic form of Vitamin B12.

*PRO TIP: You can try giving a methylated B9 vitamin (or B complex/multivitamin) and gauge how you or your child reacts. One person may process the methylfolate well, while another will get agitated, anxious, triggered, overwhelmed, or overstimulated. In this case, you may want to switch to a methylated B12. According to Dr. Dan Purser, The key to supplementing with methylfolate is to take it until you start to feel symptoms of OVERMETHYLATION, and then to back down in dosage or take time off. He recommends taking his MTHFR Renew until you feel the jitters then to switch MTHFR Endure. Order here: <https://physiciandesigned.com/?ref=fpcil432>

PRENATAL VITAMINS

Look for a prenatal vitamin that contains methylfolate and methylcobalamin.

NOTE: Back in 1996, the United States mandated the fortification of enriched cereal and grain products, which was fully implemented in 1998. This mandate may have saved up to 1,300 babies per year from neural tube defects, but unknowingly put 40-60% of women who carry the MTHFR gene at risk for other things like postpartum depression. There are no studies linking pregnancy hormones to PPD, so what is causing it? Miscarriages have skyrocketed but methylfolate aids in the adhesion of the egg to help it implant into the uterine wall. The truth is that methylfolate prevents neural tube defects NOT folic acid. [1] So what happens to those mamas and babies who carry MTHFR when supplementing with prenatal vitamins that contain excess levels of folic acid that can't be processed and run rampant in the bloodstream?

PART 6: DETOXING

THE IMPORTANCE OF DETOXING

Not only do MTHFR carriers need to detox from environmental toxins, but also from the byproducts of stress, heavy metals, cell breakdown, neurotransmitter breakdown, and excess hormones. Reduced methylation will also affect glutathione production and increase oxidative stress which increases inflammation.

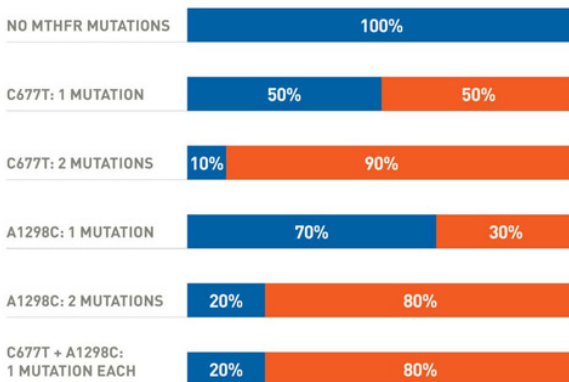
WILL I HAVE TO GET A HAIR TEST TO DETOXX?

Absolutely not. It is, however, a great way to benchmark where you're at in your health journey and to gauge which metal you may need to target. It also tests mineral load so you know which minerals to supplement or use less of.

HOW DO I KNOW IF I HAVE TO DETOXX?

If you live on planet earth, you have to detox. More so if you haven't been methylating properly because you haven't been detoxing properly. It is also standard practice in most countries to detox once or twice per year with or without MTHFR. Detoxing will rid your body of excess metals, fluoride, hormones, pesticides, herbicides, toxins, preservatives, and molds.

How much mercury
is **detoxified** vs. **stored**?*



*This is a theoretical example only.

 AMY MYERS MD[®]

WHICH HEAVY METAL DETOX SHOULD I USE?

The most effective and efficient way to detox heavy metals is to use a clinoptilolite zeolite. We recommend Touchstone Essential PBX Zeolite Spray and Drops. When used with the Fulvic minerals, it provides a superior whole-body detox that removing environmental toxins cannot do alone. And since it's nano-sized, it can cross the blood-brain barrier to trap toxins so you can pee and poop them out. Order yours at [LiMTHFR.TheGoodInside.com](https://www.LiMTHFR.TheGoodInside.com) Ask about how to get \$50 off your first detox pack. While we won't get into the particulars of detoxing in the document, but rather express the importance of it, we do have additional information available about gently detoxing yourself or your kids at www.LiMTHFR.com

USE CAUTION with COLLOIDAL SILVER

If your detoxification process is not intact, such as the case with those with an [MTHFR mutation](#), be careful using any supplement, including colloidal silver, as your body may not be able to remove toxins from the body quickly enough. Limit use or lower dosage and closely monitor your symptoms when using colloidal silver if you have detoxification issues because of a mutation or abnormally high toxin buildup.

PART 7: SAMPLE ACTION PLAN

How to manage MTHFR

Steps people have taken to help work through the process of maximizing their health with MTHFR. Take one small step per week and watch your health thrive.

- **Get Tested**

- Genetic Testing for MTHFR c677t (and) MTHFR a1298C
 - Bonus points if your testing panel includes; MTR, MTRR, COMT &/or AHCY
- Hair Follicle Testing for Mineral Load & Heavy Metal Burden
- Blood Testing (or Intracellular Testing) for Vitamins, Minerals, and Homocysteine
- Methylation Testing (if you can afford it)

- **Diet & Exercise**

- Avoid folic acid usually found in Enriched / Fortified / Processed Foods
- Water; use a spring, purified, filtered water, hydrogen water, or reverse osmosis. Check your source, go to www.ewg.org for local tap water readings
- Meat/Dairy must be Grass-Fed and Organic. Free of excess hormones
- Fruits/Veggies: Use organic and unprocessed whenever possible, Avoid APEEL coating
- Use a methylated form of vitamins
- Get fresh air & sunlight every day
- 30 minutes of exercise at least 3-4 times a week

- **Supplement**

- Avoid Folic Acid - Use methylfolate or L-5-methylfolate
- Avoid Cyanocobalamin - Use hydroxocobalamin or methylcobalamin
- Avoid any synthetic products. Especially those containing ingredients such as phthalates (“fragrance”), glyphosate (pesticide), artificial food dyes (red 3 & 40, yellow 5 & 6, blue 1 & 2), titanium dioxide, sodium lauryl sulfate, BPA, PFAS, citric acid (*aspergillus niger*), seed oils (canola, corn, cottonseed, soy, sunflower, safflower, grapeseed and rice bran), fluoride and other endocrine disruptors

- Avoid the following in your supplements: magnesium stearate, stearic acid, titanium dioxide, MSG, methylcellulose, silicon dioxide, and carnauba wax
- Avoid anything containing heavy metals such as deodorants with aluminum, vaccines, cosmetics, non-stick cookware, processed food, and drinks. At the bare minimum, detox following each use of especially vaccines

- **Detoxing**

- Add PBX Zeolite Spray & PB Drops
- Add Folinic Minerals and trace minerals back into the diet
- Support your detoxification pathways and your liver with herbs (milk thistle, cilantro, burdock root, turmeric, dandelion root, and leaf) and diet (garlic, cruciferous vegetables, berries, legumes, nuts, olive oil)
- Add magnesium to support enzymatic function and boost utilization of ATP- Magnesium chloride flakes and spray are the fastest and cheapest ways to achieve total cell saturation with an 80% absorption rate. Magnesium bis-glycinate, magnesium glycinate, magnesium threonate are also great forms taken orally with an 8-10% absorption rate. Avoid magnesium stearate. Get some at <https://www.ryannshopeapothecary.com/category/all-products>
- Add detox baths (Magnesium chloride flakes, bentonite clay, apple cider vinegar, Epsom salts (not all are created equal, be leary of synthetic versions)
- Open detox pathways by rebounding. Even 5 minutes at least 3-4 times a week is enough
- Repeat the Hair Follicle Test after detoxing

- ***Pregnant Women***

- Avoid Supplements with FOLIC ACID and look for a Methylated Prenatal Vitamin
- Avoid the following in your supplements: magnesium stearate, stearic acid, titanium dioxide, MSG, methylcellulose, silicon dioxide, and carnauba wax

PART 8: HELPFUL RESOURCES

Links to Studies

★ DNA methylation and autoimmune disease, Oct 2003 - <https://pubmed.ncbi.nlm.nih.gov/14585278/>

★ DNA Methylation, Superior or Subordinate in the Epigenetic Hierarchy? Jun 2011 - <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3174260/>

★ The methylation, neurotransmitter, and antioxidant connections between folate and depression by Alan Miller, Sept 2008 - <https://pubmed.ncbi.nlm.nih.gov/18950248/>

★ Methylenetetrahydrofolate Reductase Deficiency by Laura Dean, MD., Mar 2012 - <https://www.ncbi.nlm.nih.gov/books/NBK66131/>

★ Methylenetetrahydrofolate reductase (MTHFR) C677T polymorphism: epidemiology, metabolism and the associated diseases - <https://pubmed.ncbi.nlm.nih.gov/25449138/>

★ Pathophysiological consequences of homocysteine excess <https://pubmed.ncbi.nlm.nih.gov/16702349/#:~:text=Elevated%20level%20of%20the%20nonprotein,diseases%2C%20and%20neural%20tube%20defects.>

★ Homocysteine Metabolism <https://pubmed.ncbi.nlm.nih.gov/10448523/#:~:text=Homocyst eine%20is%20a%20sulfur%20amino,requires%20pyridoxal%2D5'%2Dphosphate.>

Books to Read

1. *The 85% Solution* by Dan Purser, MD
2. *Dirty Genes* by Dr. Ben Lynch
3. *Self Heal by Design* by Barbara O'neill

Helpful Websites

- ★ The National Library of Medicine - MTHFR gene, methylenetetrahydrofolate reductase - <https://medlineplus.gov/genetics/gene/mthfr/>
- ★ Finding an MTHFR Expert - <https://methyl-life.com/blogs/mthfr-genetics/finding-an-mthfr-expert#:~:text=If%20you've%20found%20that,the%20optimal%20choice%20for%20you.>
- ★ [MTHFR Mutations and Associated Conditions](https://mthfr.net/mthfr-mutations-and-the-conditions-they-cause/2011/09/07/) by Dr. Ben Lynch on Sep 2011 - <https://mthfr.net/mthfr-mutations-and-the-conditions-they-cause/2011/09/07/>
- ★ MTHFR: WHAT TO AVOID, Nov 2017 - <https://livermedic.com/mthfr-what-to-avoid/>
- ★ The MTHFR Mutation: What It Is and What To Do About It by Amy Myers, Md <https://www.amymyersmd.com/article/mthfr-mutation>
- ★ Article: MTHFR Gene Mutation: How to Know If You Have It and What to Do by Dr Jill Carahan, [Feb 23, 2014](https://www.jillcarnahan.com/2014/02/23/health-tips-for-anyone-with-a-mthfr-gene-mutation/) - <https://www.jillcarnahan.com/2014/02/23/health-tips-for-anyone-with-a-mthfr-gene-mutation/>
- ★ Article: Is Overmethylation The Cause of Your Anxiety? By Dr. Jill Carnahan, Jun 25 2018 - <https://www.jillcarnahan.com/2018/06/25/is-overmethylation-the-cause-of-your-anxiety/>

★ Article: THE 'PERFECT' EXAMPLE OF UNDERMETHYLATION
by Dr Penny Caldicott Feb 8, 2017

<https://invitationtohealth.com.au/be-well-magazine/perfect-example-undermethylation/#:~:text=Undermethylation%20affects%20the%20body's%20access%20to%20Methyl%2DB12.&text=Undermethylation%20is%20also%20associated%20with,and%20schizoactive%20or%20bipolar%20disorders.>

★ Article: Do I need MTHFR Renew or MTHFR Endure?

DanPurserMD.com and PhysicianDesigned.com

[https://physiciandesigned.com/blogs/glutathione/do-i-need-mthfr-support-of-mthfr-support-plus?](https://physiciandesigned.com/blogs/glutathione/do-i-need-mthfr-support-of-mthfr-support-plus?gad_source=1&gclid=CjwKCAiA440tBhAOEiwAj4gpOVQtyh-rfNrY9Zbq42q52YMvqNT3BHZZpOzXKtvR6cQE439KZ1MKmxoC4Z4QAvD_BwE)

[gad_source=1&gclid=CjwKCAiA440tBhAOEiwAj4gpOVQtyh-rfNrY9Zbq42q52YMvqNT3BHZZpOzXKtvR6cQE439KZ1MKmxoC4Z4QAvD_BwE](https://physiciandesigned.com/blogs/glutathione/do-i-need-mthfr-support-of-mthfr-support-plus?gad_source=1&gclid=CjwKCAiA440tBhAOEiwAj4gpOVQtyh-rfNrY9Zbq42q52YMvqNT3BHZZpOzXKtvR6cQE439KZ1MKmxoC4Z4QAvD_BwE)

★ Article: Colloidal Silver Benefits: What is Fact, What is Fiction?

<https://thefamilythathealstogether.com/colloidal-silver-benefits-fact-or-fiction/>

Podcasts

★ The Joe Rogan Podcast, #2060 Gary Brecka, Nov 2023. Gary Brecka is a human biologist and co-founder of 10x Health Systems -

<https://open.spotify.com/episode/3IPGysPyS1rrQDZD9pl2zG>

★ Mastering Nutrition with Dr. Chris Masterjohn, #37 Living With MTHFR -

<https://open.spotify.com/episode/7rQqLo6639Jk1AB1AlYFbd?si=fY33FUCPT2iDm1s7EjsRdw>

MTHFR Doctors & Holistic Health Practitioners

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 - <https://www.amymyersmd.com/>
- **Jill Carnihan**
 - (303) 993-7910 - Colorado
 - <https://www.jillcarnahan.com/>
- **Gary Brecka - 10x Wellness**
 - (844) 977-2810 - LA, California
 - support@10xhealthsystem.com
 - <https://10xhealthsystem.com/>
- **Brigham Buhler - Ways2Well**
 - (800) 321-0864
 - info@ways2well.com
 - <https://ways2well.com/>
- **Caitlin Woolery - Veritas Botanica**
 - <https://www.veritasbotanica.com/>
- **Dr. Mindi Salvino - Pure Health Collective**
 - (539) 218-3611 - Jenks, Oklahoma
 - info@purehealthcollective.com
 - <https://www.purehealthcollective.com/>

Facebook Groups

MTHFR Mama detox support group -
<https://www.facebook.com/groups/mthfrmama>

MTHFR Understanding Gene Mutations & Epigenetics -
<https://www.facebook.com/groups/MTHFRGROUP>

MTHFR Gene Mutation -
<https://www.facebook.com/groups/230824260340671>

ABOUT THE AUTHORS

WHEN DID MTHFR AFFECT YOU THE MOST?

Barbara from LiIMTHFR.com: *Both my daughters and myself are Heterozygous c677t.* For me, the symptoms of MTHFR manifested most during pregnancy as hyperemesis gravidarum (HG), very bad morning sickness that lasted all day, and for all 9 months. For both of my pregnancies the more prenatal vitamins I took, the worse it was. I didn't realize I wasn't able to process the excess folic acid in the prenatal supplements. I could barely eat because I would vomit at the smell of food. I couldn't absorb nutrients and kept being told by my doctor to take more prenatal vitamins. I could barely drive in the car without getting so sick I would vomit from the motion sickness. I remember getting dizzy if my husband even swayed a bit when standing. I was being monitored for strokes. It was maddening. The only remedy my doctor gave me back in 2013, was a prescription for Zofran, an anti-nausea drug, which made me feel seasick. It turns out that in 2023, Zofran was in a class action lawsuit because it could potentially cause injury to an unborn child. I didn't know then what I know now about the medical system, and that her only power was to write me a prescription for something. She never even cared about the root cause. She just figured I was another pregnant mother with morning sickness. But what if the morning sickness is caused by poor methylation?

Kelly from Ryann's Hope Apothecary: *I am confirmed heterozygous compound, I have one copy of each c677t & a1298c.* In 2020, my health majorly declined (although my journey really began 17 years prior). I was in and out of the hospital due to seizures, trouble breathing, and mini-strokes on top of dealing with lupus and Graves' disease. I was on eight different medications for every symptom under the sun and I was at the end of my rope. After receiving little to no help from the medical system, I took matters into my own hands and began researching like my life depended on it because it did. One of the things that I learned was how every member of my immediate family has the MTHFR gene mutation, including my oldest daughter who passed away inexplicably in October of 2007 at 3 months and 3 days old. MTHFR has had a profound effect on our lives, to say the least. My daughter paid the ultimate price. This information should be readily available to everyone for true informed consent.

WHY WE WROTE THIS FREE E-BOOK

Barbara from LiIMTHFR.com: After being frustrated with doctors giving us the run-around, I started doing research into my daughter's complex health conditions. At one point I was at a dead-end and needed more answers. I decided to do a heavy metal toxicity and MTHFR gene test. I had read about the MTHFR gene before but didn't think we had it until I saw a photo of a stork bite. Upon further investigation it would turn out that time after time our family exhibited the signs of an MTHFR variant and I knew we had to get tested. Three of us came back positive for having one copy of MTHFR c677t. It was life-changing, to say the least. After gaining that knowledge I was able to clearly see that MTHFR was the cornerstone to all of my daughters' complex medical issues. Empowered with the knowledge I'd gained, I took her health into my own hands and she hasn't needed any of the doctors or specialists since 2018. I wanted to write this book to

help other families like ours by sharing the knowledge I've gained, sharing the resources I've discovered, and sharing the products that have helped our family thrive. I hope you find it helpful.

Kelly from Ryann's Hope Apothecary: Being at a dead end with no answers to my health issues and my daughter's inexplicable death left me feeling helpless and scared. I knew I had to take my health and my healing into my own hands and work at it like a full-time job. So that's what I did. I buried myself in research and truly educated myself when it came to what I put in and on my body. I learned how to read labels, about toxins in our food and other products, about deficiencies and proper supplementation, the truth about vaccines, herbs and how they work with the body, and most importantly, about MTHFR and the effect it has on your life. Some of the things that have been deemed "safe and effective" are anything but, safe and effective. Especially for someone with the MTHFR gene mutation. When I started changing my lifestyle and implementing those changes with the rest of my family, we FINALLY began thriving. Now I'm on a mission to spread awareness on this subject.

BACKGROUND

Barbara from LilMTHFR.com: My number one job is being a wife and mom. I enjoy selling real estate on the side and running our charity where we give gifts, grants, resources, and support to hospitalized and medically complex children. My hobbies include reading, writing, and researching. I and both of my daughters are MTHFR c677t warriors who have suffered the effects of heavy metal poisoning and vaccine injury. Additionally, my mother is compound heterozygous, and through our research, proper supplementation, and detoxification - she feels better than she has in years.

Kelly from Ryann's Hope Apothecary: In October 2023, I started a natural remedies business named Ryann's Hope Apothecary, named after my daughter who passed away in 2007. I am very passionate about making natural remedies that work with our bodies, the way nature intended. Some of my hobbies include researching, reading, and helping people bridge the gaps in their own health journeys and research. I have a background in emergency and veterinary medicine. I am incredibly passionate about using what I've learned to help others live their best lives.

NOTE: These topics do not constitute medical advice and are not meant to prevent, diagnose, treat, or cure any disease. The information provided is for informational purposes only by the MTHFR Mamas Facebook group.

If you have any questions please join our Facebook group
<https://www.facebook.com/groups/mthfrmama>
or send an email to LilMTHFR@gmail.com