

# NARRATION SCRIPT: MTHFR: Methylenetetrahydrofolate Reductase

#### Overview

Methylenetetrahydrofolate reductase, or MTHFR, is an enzyme. This enzyme triggers important biochemical reactions in the body. Primarily, this enzyme converts vitamin B9, or folate, into methyl-folate. Methyl-folate is essential for a critical process in the body called methylation.

The methylation cycle is critical in helping us to optimally operate physically and mentally through many functions such as repairing damages cells, affecting hormones, regulating neurotransmitters and detoxifying the body.

### **Predispositions**

Because of this, people with an MTHFR mutation cannot methylate properly or effectively detoxify their bodies, putting them at a much higher risk for developing a number of physical and mental diseases and health concerns such as cancer, heart disease, stroke, leukemia, autoimmune diseases and schizophrenia.

#### **Action Plan**

The good news is that there are specific diet and lifestyle actions people can take in order to reduce inflammation and burden on detox pathways and systems of elimination. This limits the expression of this mutated gene, decreasing the symptoms associated with MTHFR.

### **Diet Considerations**

In order to support bodies that don't detoxify properly, it is important to eat as close to nature as possible, eliminating inflammatory and unnatural food that burden the body. It is best to avoid all processed foods, most grains, gluten, conventional dairy, sugars, alcohol, many oils and soy.

To help mitigate the effect of MTHFR mutation symptoms, focus on adding plenty of B vitamins naturally through your diet by eating folate-rich foods such as asparagus, broccoli, avocado, and dark, leafy greens such as spinach and kale. The balance of the diet should support the body with organic vegetables, fruit, nuts, seeds, and if needed, high quality sources of unprocessed fish and meat. Michael Pollan put it simply, If it's a plant, eat it. If it was made in a plant, don't.

## **Supplementation & Folic Acid**

Without appropriate MTHFR functionality, the body cannot convert folic acid into its bioavailable form, folate. Many people with this gene mutation do well with daily folate and B vitamin supplementation while importantly, avoiding folic acid. Folic acid, the synthetic form of folate, can be found in fortified and processed food. It is harmful for those with the MTHFR mutation because it can stay unconverted in the body, attaching itself to the same receptors used to absorb folate thereby backing the system up without the proper detoxification.

# **Lifestyle Considerations**

Other lifestyle considerations include modulating stress as much as possible, not smoking, and removing environmental and household toxins such as chemical cleaners.

### **Support Detoxification**

Because detoxification is severely compromised in people with the MTHFR gene mutation, it is recommended to encourage detoxification by engaging in activities such as regular exercise, bathing in Epsom salts, and sauna treatments. Fasting is another powerful detoxification tool to be explored.

#### Conclusion

This may seem like an overwhelming diagnosis but when people with the MTHFR gene mutation support the body's methylation and detox pathways by actively following the advice mentioned, they can support their body proactively and mitigate the obstacles of MTHFR mutation symptoms long-term and with confidence.