

MTHFR Treatment During Pregnancy: What You Need to Know

by Iva Keene MRMed. ND. - Natural Fertility Specialist - Thursday, February 14, 2013

<https://natural-fertility-prescription.com/treatment-for-mthfr-mutation/>

Treatment for MTHFR mutation is a lot simpler than its name! The **MTHFR gene** is in charge of Methylene tetrahydrofolate reductase (MTHFR), an enzyme responsible for folic acid metabolism in the body. In this article, we'll look at the function of this enzyme, why it's important for fertility and the **standard treatment for MTHFR mutation**. Genetics can be quite complicated and the terminology confusing so I'll stick to the layman's terms to explain what's going on in the body if you have this mutation. Polymorphisms (changes) of this gene can result in MTHFR enzyme malfunction and improper use of folic acid by the cells.^[1] Folate plays an incredible number of roles in the body including:^[2]

- the formation of red blood cells
- DNA transcribing, protein production
- cellular energy production and metabolism (Krebs cycle)
- works closely with B12 and other B vitamins in hundreds of cellular processes

And the list goes on!

Folic Acid and MTHFR Gene Mutation

As you may be aware, folate is crucial for fertility, miscarriage prevention, the formation of your baby's organs during the crucial first trimester of your pregnancy, when so-called organogenesis - organ formation - takes place. Neural tube defect is just one of the many malformations which can result from inadequate folate intake. However, if you have MTHFR gene mutation, a normal intake of folic acid will not be enough. In fact, folic acid can downregulate your folate receptors on the cells because there is a lack of MTHFR enzyme to draw it into the cell. This makes it even harder for your cells to get the natural form of folic acid (folate) from vegetables and fruit. Folate does not need the enzyme to get access to the cell, but if all the receptors are blocked by the synthetic, man-made version of folate, a.k.a. folic acid, then there is no way into the cell until the receptors die and new ones form.

MTHFR Mutation and Homocysteine

It is estimated that approximately **30%-40% of the population have a malfunctioning MTHFR gene**^[3]. Some have it on both chromosomes and most on just one chromosome. This mutation predisposes you to chronic conditions later in life as result of homocysteine accumulation. Homocysteine is a free radical our body produces as a result of cellular metabolism^[4] - the Krebs cycle. It is also one of the most toxic free radicals for our bodies. Folate helps break it down to a water-soluble state which can easily be excreted via feces and urine. But when you can't utilize folic acid properly, homocysteine accumulates in the cells and predisposes you to cardiovascular conditions, recurrent miscarriages, congenital malformations in the baby if you are pregnant, implantation issues, blood clotting issues, cancer and other chronic diseases.

Treatment for MTHFR Mutation

1. Have Yourself and Your Partner Tested.

If you test positive, read on, if you test negative, stick to the recommended dose of **800 micrograms** of folic acid per day. Although you don't have the mutation, it's still better to take the activated form of folic acid.

2. Start Taking Methylfolate.

If you tested positive for MTHFR gene polymorphism, you will need to follow the treatment for MTHFR mutation. Start taking 1 mg of folic acid or methylfolate a day. The methylated form is best (5-MTHF). But you can also over-methylate which is not good either so it's best to use folic acid or a supplement that has both methylfolate and folic acid. As folate works closely with B12, you will need to increase your dose of B12 as well. Most high dose folic acid preparations already are combined with B12. And it's best if the B12 is also activated such as Hydroxocobalamin or Methylcobalamin and Adenosylcobalamin. You will need a prescription for such a high dose of folic acid and your doctor who performed the test will be able to write you a script for it.

3. Take Folic Acid 120 Days Prior to Conception.

To prevent miscarriages make sure to take 1 mg of folic acid for at least 120 days prior to conception to ensure the batch of eggs you'll be trying to conceive with has been developing in healthy conditions.

4. Discuss With Your Doctor How Long You'll Stay on Folic Acid.

Depending on your medical and family history you may or may not need to stay on such high doses of folic acid for the rest of your life. Your doctor can discuss this with you. And just because this is what is currently being prescribed as a treatment for MTHFR mutation does not mean the treatment will stay the same in 10 years. Always keep researching and looking for the latest advancements in science. Nothing changes more rapidly than the scientific discoveries! I'm happy to say that I have been able to successfully treat recurrent miscarriages when the underlying cause was MTHFR gene mutation with high doses of folic acid. Please share your thoughts on treatment for MTHFR mutation with me. Do you have it? Are you taking high doses of folic acid daily? Did it have a positive outcome on your pregnancy? Are you familiar with any other treatments for MTHFR mutation? Would love to hear from you!

References

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