UNDERSTANDING FOLATE FORMS & FUNCTIONS

Whole Lifecycle NUTRITION

Folate is a **B-vitamin (B9)** essential for energy, mood, brain health, red blood cell production, and DNA repair. It plays a key role in fertility, pregnancy, and detoxification.

1. NATURAL FOLATE (FOUND IN FOODS)

These forms are found in whole foods and are used easily by the body.

- **Folate (general term)** – Found in dark leafy greens, lentils, asparagus, liver, avocados, and beans.
- **5-MTHF (L-methylfolate)** – The active form your body can use right away.
- **Tetrahydrofolate (THF)** – Another active form, made inside your cells.

Best for: everyday support through real food and active-form supplements.

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2. SUPPLEMENT FORMS OF FOLATE

Not all folate supplements are created equal!

SUPPLEMENT	TYPE	WHAT TO KNOW
Folic Acid	Synthetic	Common in fortified foods & basic vitamins. Requires conversion in the body. May build up if not well metabolized (especially with MTHFR gene variants).
5-MTHF (L-methylfolate)	Active form	Most bioavailable. Bypasses genetic blocks like MTHFR. Found in high-quality vitamins.
Folinic Acid (Calcium Folinate, Leucovorin)	Pre-activated form	Helpful for sensitive individuals. Often used in medical or therapeutic settings.

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WHAT ABOUT MTHFR?

If you have a genetic variant like **MTHFR**, your body may struggle to convert folic acid into its usable form. In that case:

- Choose **methylated folate (5-MTHF)** or **folinic acid**
- Limit **folic acid**, especially in high doses
- **Choosing the Right Folate for You**
- Eat a variety of **folate-rich foods**
- Look for **5-MTHF** or **folinic acid** in supplements
- Talk to your provider about your needs—especially during **pregnancy, fertility treatment, or if you have fatigue, anxiety, or MTHFR mutations**

Limiting folic acid with an MTHFR gene variant is important because your body may not efficiently convert it into its active, usable form → 5-MTHF (5-methyltetrahydrofolate).

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HERE'S A BREAKDOWN

Why Folic Acid May Be Problematic with MTHFR Variants

- **Folic acid is synthetic and inactive:** It must go through several steps to be converted into the bioactive 5-MTHF form. This process requires the MTHFR enzyme.

- **MTHFR variants reduce enzyme activity:** Common MTHFR mutations like C677T or A1298C can reduce the ability to convert folic acid by 30-70% or more, depending on your gene type (heterozygous or homozygous).

- **Unmetabolized folic acid (UMFA) can build up:** When folic acid isn't converted properly, it can accumulate in the bloodstream as unmetabolized folic acid.

- **This may:**
  - Block natural folate receptors
  - Interfere with methylation
  - Disrupt immune or neurological function in sensitive individuals

- **It doesn't "work better" with more:** High doses of folic acid don't fix the problem - they just increase the burden on your body to convert it.

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BETTER OPTIONS

If you have (or suspect) an MTHFR variant:

- **Choose supplements with:**
  - 5-MTHF (L-methylfolate) – already active
  - Folinic acid – a gentle, pre-converted form
- **Avoid or limit:**
  - Folic acid – especially in high doses or from multiple sources (like fortified foods + vitamins)