

Vitamin B9 (Folate) Overview

Why We Need It

Vitamin B9, commonly known as Folate (or Folic Acid in synthetic form), is a water-soluble B vitamin essential for DNA synthesis, red blood cell production, and overall cellular function. It is particularly crucial during pregnancy for fetal development.

Functions in the Body

DNA & RNA Synthesis: Essential for cell division and genetic material formation.

Red Blood Cell Production: Helps prevent anemia by supporting red blood cell formation.

Fetal Development: Crucial for preventing neural tube defects during pregnancy.

Heart Health: Helps regulate homocysteine levels, reducing the risk of cardiovascular disease.

Brain Function: Supports cognitive health and may reduce the risk of neurodegenerative diseases.

Daily Recommended Intake

Adults: 400 mcg/day

Pregnant Women: 600 mcg/day

Lactating Women: 500 mcg/day

Upper Limit (UL): 1,000 mcg/day (excessive intake from supplements may mask vitamin B12 deficiency).

Benefits of Supplementation

- Supports healthy pregnancy by preventing neural tube defects.
- Aids in red blood cell formation, preventing anemia.
- Helps lower homocysteine levels, promoting heart health.
- May enhance brain function and support cognitive performance.
- Supports cell growth and repair, essential for overall well-being.

Most Bioavailable Form

5-Methyltetrahydrofolate (5-MTHF) – The active form of folate, which is more efficiently utilized by the body than synthetic Folic Acid, especially for individuals with MTHFR gene mutations.

Best Food Sources

Animal-based: Liver, eggs, seafood.

Plant-based: Leafy greens (spinach, kale), legumes, avocados, asparagus, and fortified grains.

Conclusion

Vitamin B9 (Folate) is critical for DNA synthesis, blood health, and fetal development. Ensuring adequate intake through diet or supplementation (preferably as 5-MTHF) supports cardiovascular health, cognitive function, and overall cellular health.

