

Clinical Research Update

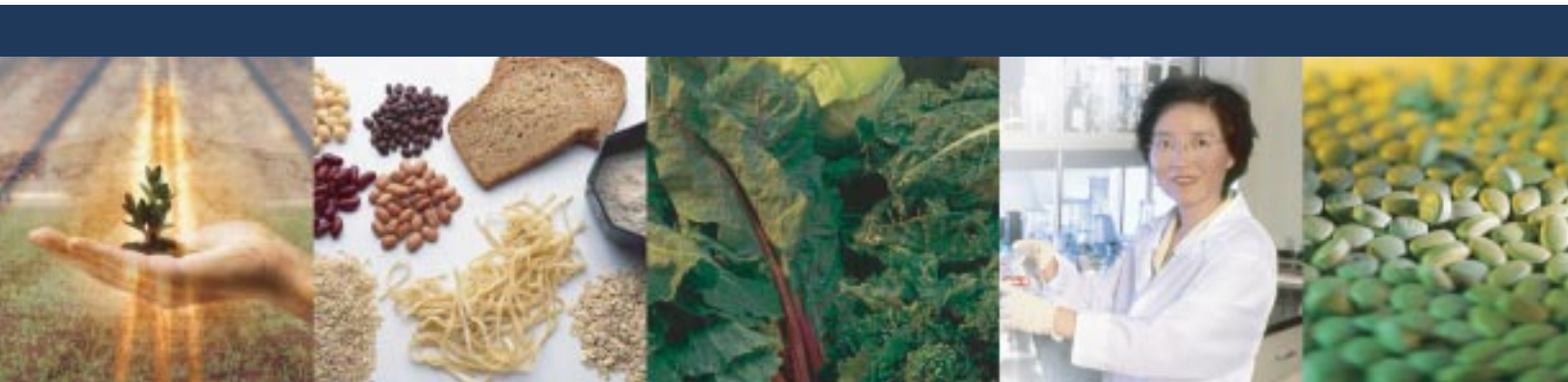
B Complex

Nutriline Health Institute Sponsored

Research with Stanford Shows that

Natural B Complex Helps Maintain

Healthy Plasma Homocysteine Levels



AT A GLANCE:

- Study Goal: Find out how Nutralite Natural B Complex compares to consumption of folic acid-fortified foods and foods naturally high in folate at increasing plasma folate and decreasing plasma homocysteine levels.
- Study Results: After six weeks, plasma folate concentrations increased while homocysteine levels decreased in the Supplement and Fortified groups, but not in the other groups.
- Conclusion: Nutralite Natural B Complex supplementation may be a convenient and effective way to help maintain healthy homocysteine levels in adults with mildly elevated homocysteine levels.

Studies in the general population have generally found that folic acid (folate), vitamin B6, and vitamin B12 lower homocysteine (Hcy), an amino acid found in the blood. It is not known whether elevated levels of Hcy may cause vascular disease or whether high Hcy levels are caused by other factors. Studies that will directly evaluate whether reducing Hcy may also reduce the risk of vascular disease are not yet complete. It is known that diets low in saturated fat and cholesterol may reduce the risk of heart disease. The scientific evidence about whether these vitamins may also reduce the risk of heart disease and other vascular diseases is suggestive, but not conclusive. Hcy levels increase with age, tend to be higher in men, but rise sharply in women after menopause, and often show an inverse relationship with plasma folate.

Nutralite scientists wanted to find out how Nutralite Natural B Complex compares to consumption of folic acid-fortified foods and foods naturally high in folate (folic acid as found in nature) at increasing plasma folate and decreasing plasma Hcy levels. To do this, scientists at the Nutralite Health Institute collaborated with researchers at Stanford University to conduct a placebo-controlled clinical trial.

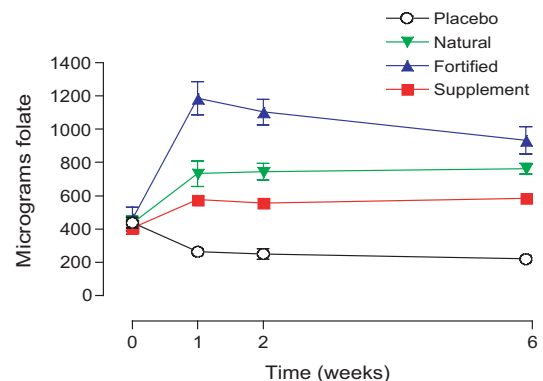
Adults with mildly elevated plasma Hcy concentrations (women > 9 $\mu\text{mol/L}$, men > 10 $\mu\text{mol/L}$) were randomly assigned (14-16 people/group) to receive Nutralite Natural B Complex (Supplement group), folic acid-fortified foods (Fortified group), naturally folate-rich foods (Natural group), or placebo tablets for six weeks (Placebo group). Those in the Supplement group consumed three tablets of Nutralite Natural B Complex, delivering a daily total of 400 micrograms of folic acid, 3.6 milligrams of vitamin B6, and 6 micrograms of vitamin B12 among other B vitamins.

During the study, every group except the Placebo group increased their intake of folate from various sources. After six weeks, plasma folate concentrations were increased in the Supplement and Fortified groups but not in the Placebo or Natural groups. Plasma Hcy concentrations decreased significantly in both the Supplement ($p = 0.001$) and Fortified groups ($p = 0.002$) compared to the Placebo group. These results can be seen in the figures to the right. Such findings suggest that B Complex supplementation may be a convenient and effective way to help maintain healthy Hcy levels in adults with mildly elevated plasma Hcy concentrations.

This research was presented at the October 2000 American College of Nutrition Annual Meeting, Las Vegas, NV.

To learn more about this and other research, visit us at www.nutralite.com.

Folate consumption of groups over time



Homocysteine levels of groups over time

