



Quatrefolic®

Online

Gnosis is the ideal partner for proactive and go-ahead companies which recognize the drive force of innovation of its ingredients and would like to boost the nutritional value of their finished products.

3rd issue 2016

Our customers receive continuous valued support through speeches, conferences and international events and with the scientific collaborations of our prominent scientists, academic experts and opinion leaders.

Our commitment is to help them to launch new products with high degree of innovation, scientific value and proven efficacy.

Silvia Pisoni
Marketing Manager



Pills



Prenatal maternal folate deficiency in early pregnancy has a long-lasting global effect on brain development in offspring and has been associated with smaller total brain volume, poorer language and visuo-spatial performance in children aged between 6 and 8 years. (Ref 4)

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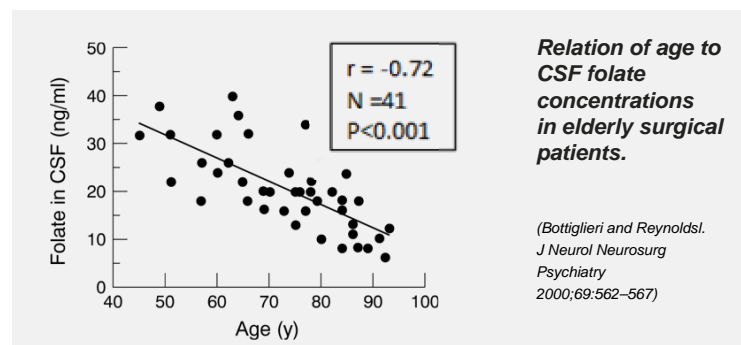


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Quatrefolic® and Nutrition Concerns for Aging Populations

The prevalence of folate deficiency is high among individuals aged ≥ 65 years mainly due to reduced dietary intake and intestinal malabsorption and reaches approximately 30%.

Bottiglieri and Reynolds have shown that concentrations of folate in the cerebrospinal fluid (CSF) were found to decrease with age, providing further evidence of a link between folate concentrations and age and, highlighting this connection directly in the nervous system, for the first time.



Population-based studies have demonstrated that a low folate status and the consequent impairment of one-carbon metabolism is associated with cardiovascular disease, mild cognitive impairment, dementia (particularly Alzheimer's disease) and depression in healthy and neuropsychiatric diseased older individuals.

Quatrefolic® supplementation is suggested to guarantee the right dosage of biologically active folate and to efficiently support methylation, DNA biosynthesis, and nervous system function.

Next events:



The Venetian,
Las Vegas, USA
December 9 - 11, 2016
Visit us at booth # 7037



Hilton Midtown,
New York, USA
February 24 - 25, 2017
Visit us at booth # 507

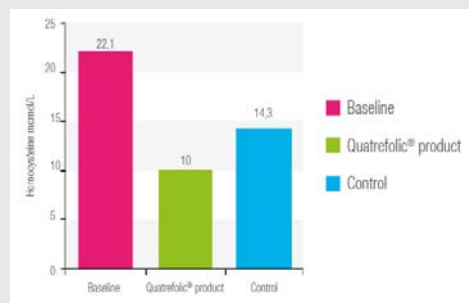


Orlando World
Center Marriot, USA
April 18 - 20, 2017
Visit us at booth # 154

Quatrefolic® and Homocysteine in Health

Quatrefolic® is effective in lowering Homocysteine

A new study (Mazza et al 2016) has investigated the efficacy of Quatrefolic® (400 mcg of Quatrefolic® plus B6, and B12) in lowering homocysteine serum levels (HCys) versus a conventional vitamin supplementation with highly dosed folic acid (5 mg/day) in hypertensive subjects at low cardiovascular risk (104 patients with HCys $\geq 15 \mu\text{mol/L}$).



The result shows significant HCys reduction in comparison with baseline from 21.5 mcmol/L to 10.0 mcmol/L with the product containing Quatrefolic®. (Ref 1)

The treatment was significantly effective and the ideal HCys level was reached in 55.8% of cases in the Quatrefolic® group, and it was significantly higher than in controls.

References:
 1 Mazza et al., Nutraceutical approaches to homocysteine lowering in hypertensive subjects at low cardiovascular risk: a multicenter, randomized clinical trial. *J Biol Regul Homeost Agents*. 2016.
 2 Caruso et al., Effect of homocysteine lowering by 5-methyltetrahydrofolate on redox status in hyperhomocysteinemia. *J Cardiovasc Pharmacol* 47:549-555, 2006.
 3 Scott JM, Weir DG. Folic acid, homocysteine and one carbon metabolism: a review of the essential biochemistry. *J Cardiovasc Risk*. 1998.
 4 Ars et al. Prenatal folate, homocysteine and vitamin B12 levels and child brain volumes, cognitive development and psychological functioning. *Br J Nutr*. 2016

Homocysteinemia is widely accepted as an independent risk factor for coronary, cerebral and peripheral vascular diseases.

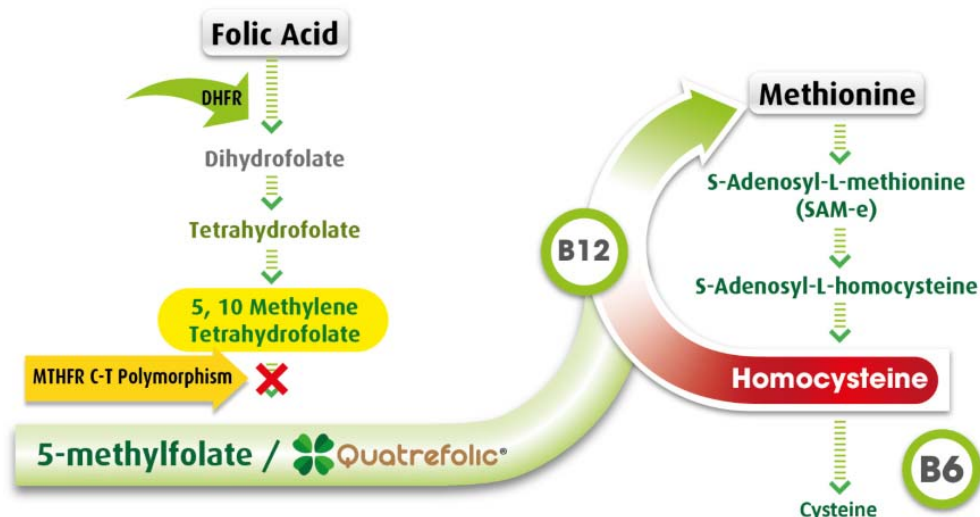
Prevalence of hyperhomocysteinemia (HCys) varies with the target population and tends to increase with age. Significant is the incidence in elderly population:

- General population: 5 – 10%
- Elderly population: 30 – 40%
- Patients with vascular diseases: 20 – 40%

The relationship between serum folate, cardiovascular disease and poor cognitive function may be due to the role of folate in controlling and reducing homocysteine blood and its effects on the vascular system. Folate deficiency is one of the main cause of hyperhomocysteinemia; among other causes there are genetic and environmental factors.

Supplementation of folate, such as Quatrefolic®, has demonstrated to lower the buildup of homocysteine and to be an effective contribution to health, even in presence of other risk factors.

Moreover, Quatrefolic® may be also a valid nutritional support for people with alterations in the metabolism of folate and, consequently, of homocysteine.



In these subjects, genetic alterations cause deficiencies in the enzymes involved in the elimination process of homocysteine increasing the risk to develop homocysteinemia.

The most prevalent is the polymorphism of the MTHFR enzyme methylenetetrahydrofolate-reductase that impairs the availability of 5-methylfolate (5-MTHF).

Quatrefolic®, already providing 5-MTHF is the best folate to help to maintain ideal levels of HCys in humans. (Ref 2,3)

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