

# CERENEMIC

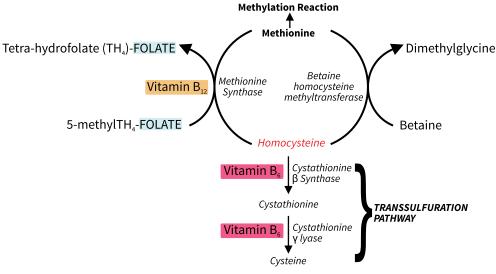
Folic Acid 200 mcg, Pyridoxine 2 mg, Riboflavin 2 mg, Methylcobalamin 1 mcg, Betaine 300 mg, Zinc 12 mg Capsules

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### **INTRODUCTION:**

 Homocysteine is a sulphurous amino acid that is formed as an intermediary product during the conversion of the essential amino acid methionine to cysteine.<sup>1</sup>



- Fig: Homocysteine Metabolism
- Hyperhomocysteinemia (HHcy) originates from a deviation in the methionine-homocysteine metabolism.<sup>1</sup>
- Hyperhomocysteinemia (HHcy) causes various neurological disorders.

Hyperhomocysteinemia (HHcy) has been associated with B vitamin deficiencies of folate, B6, and B12 due to their role as cofactors in the metabolism of Hcy.<sup>2</sup>

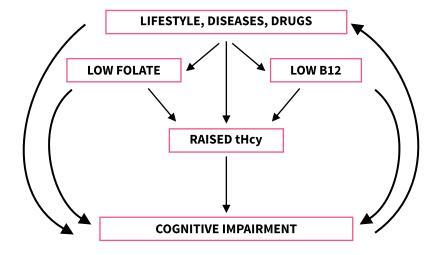


Fig: Low Vit B levels and Cognitive Impairment

### **CLINICAL EFFECTIVENESS**

### A: STROKE

### Hyperhomocysteinemia as a risk factor for ischemic stroke: An Indian Scenario

Neurology India, Sep 2005, Vol 53 (3)

- A prospective case control study.
- A total 57 patients with stroke included.

Statistical analysis used: Student' 't' test and chi-square test.

**Results:** The total homocysteine (tHcy) were significantly high in patients with stroke, high in hypertensive patients compared to normotensive patients and smokers compared to non-smokers.

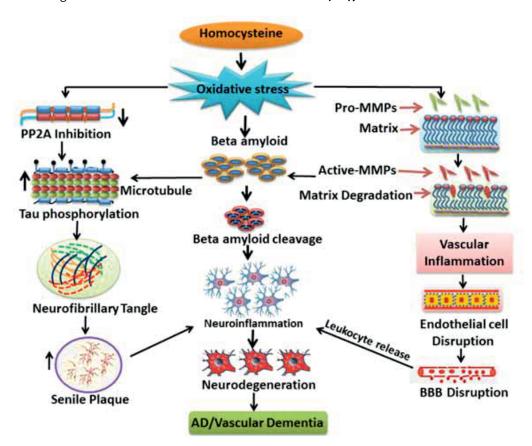
**Conclusion:** Hyperhomocysteinemia emerged as an important independent risk factor for ischemic stroke.

### **B: NEURO-DEGENERATIVE DISEASE**

### Homocysteine Induced Cerebrovascular Dysfunction: A Link to Alzheimer's Disease Etiology.

The Open Neurology Journal, 2015, 9, 9-14

• An elevated plasma level of Hcy (>14 μM) is termed as Hyperhomocysteinemia (HHcy), which has emerged as an independent risk factor for several Neurodegenerative diseases such as **Alzheimer's disease (AD), stroke** and **vascular dementia**.



#### **Conclusion:**

- One known condition to affect the cerebrovascular homeostasis is HHcy.
- Evidence suggests HHcy may promote dementia by more than one mechanism, including cerebral microangiopathy, endothelial dysfunction, oxidative stress, neuronal damage, enhancement of beta-amyloid peptide-mediated vascular toxicity, neurotoxicity, and apoptosis.

## CERENEMIC

Folic Acid 200 mcg, Pyridoxine 2 mg, Riboflavin 2 mg, Methylcobalamin 1 mcg, Betaine 300 mg, Zinc 12 mg Capsules

### **DESCRIPTION:**

CERENEMIC is a multivitamin capsule that helps manage homocysteine level.

### **INDICATION:**

Cognitive impairment, Neuro-Degenerative disorders – Stroke, Alzheimer's and co-Morbid Condition.

### **FEATURES:**

- Methylcobalamin is the essential cofactor for methionine synthase.
- Folic acid alone or in combination is associated with a 25% lower risks of future stroke. <sup>2</sup>
- The principal physiologic role of betaine is as an osmolyte and methyl donor (transmethylation).
- Betaine has been shown to protect internal organs, improve vascular risk factors, and enhance performance.<sup>3</sup>
- Lower levels of Vit B6 is associated with risk of ischaemic stroke. 4
- Supplementation with 5 mg of riboflavin immediately post-infarct significantly improved riboflavin status in stroke patients.<sup>5</sup>
- Low zinc level is a risk factor for stroke.<sup>6</sup>

### **DOSAGE:**

One capsule a day or as suggested by healthcare professional.

### PRESENTATION:

It comes as a strip of 10 capsules.

### **STORAGE:**

Store in a cool and dark place at a temperature not exceeding 25°C.

#### Reference:

- 1. Rev Assoc Med Bras 2018; 64(5):428-432
- 2. Journal of Stroke 2018;20(1):99-109
- 3. Am J Clin Nutr 2004;80:539–49
- 4. Stroke. 2004;35:12-15

### La Renon Healthcare Private Limited

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