

## **CLINICAL SPECIFICATIONS**

# HAZELNUT VICILIN + CASHEW VICILIN

### **Function**:

Vicilin is a globulin protein found in nuts that acts as a storage of nutrients for plant growth.

**Associated With:** 

Hazelnut immune reactivity Cashew immune reactivity

**Known Cross-Reactions:** Aβ<sub>42</sub> peptide;<sup>1</sup> Olive<sup>2</sup>

### **Clinical Significance:**

Vicilins are considered to be major allergens with severe clinical and systemic reactions.<sup>3</sup> Vicilin protein cannot be isolated and removed from the whole nut; thus, if a person reacts to Hazelnut Vicilin + Cashew Vicilin, the therapeutic strategy would be to remove Hazelnuts and Cashews from the patient's diet. Although some researchers found Hazelnuts to be beneficial in the modulation or prevention of Alzheimer's disease (AD),<sup>4,5</sup> Vojdani and Vojdani<sup>1</sup> showed that Hazelnut cross-reacts with amyloid beta; therefore, when there is a breach in the blood-brain barrier, the antibody made against Hazelnut circulating in the bloodstream may play a role in the pathogenesis of AD. Furthermore, when followed over time, avoidance/prevention treatment plans tailored and supervised by the ordering healthcare professional may help repair the gut barrier, re-establish oral tolerance to the offending food, reduce the levels of vicilin cross-reactive antibodies, and prevent/reverse cognitive decline.<sup>1,6</sup>

#### **References:**

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- 4. Gorji et al. Almond, hazelnut and walnut, three nuts for neuroprotection in Alzheimer's disease: A neuropharmacological review of their bioactive constituents. Pharmacol Res, 2018; 129:115-127.
- 5. Bahaeddin et al. Hazelnut and neuroprotection: Improved memory and hindered anxiety in response to intra-hippocampal Aβ injection. Nutr Neurosci, 2017; 20(6):317-326.
- 6. Atkinson et al. Food elimination based on IgG antibodies in irritable bowel syndrome: a randomized controlled trial. Gut, 2004; 53(10):1459-1464.

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