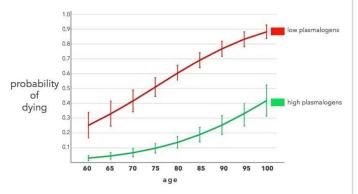


Low Plasmalogen Levels Are Associated with Dementia and Early Death



In a landmark study in collaboration with Dr. David Bennett at Rush University, high plasmalogen levels were shown to be associated with extended healthy longevity. This was independently corroborated by others and highlights the importance of this natural molecule for not just neuronal cells, but all cells and tissues.

More info
Kevin Perrott
m. 415-500-1377
contact@opencures.org
for more information.

The Science

- 1. Plasmalogen deficiency and neuropathology in Alzheimer's disease: Causation or coincidence? *Alzheimer's & Dementia TRCI 5*: Doi 10.1016/j.trci.2019.08.003
- 2. Relation of Serum Plasmalogens and APOE Genotype to Cognition and Dementia in Older Persons in a Cross-Sectional Study. *Brain Sci* 9: Doi 10.3390/brainsci9040092
- 3. Plasmalogen Augmentation Reverses Striatal Dopamine Loss in MPTP Mice. *PLoS One. 2016 Mar* 9;11(3):e0151020. doi: 10.1371/journal.pone.0151020.
- 4. Metabolic dysfunctions in multiple sclerosis: implications as to causation, early detection, and treatment, a case control study. *BMC neurology*, *15*, *154*. doi:10.1186/s12883-015-0411-4
- 5. Plasmalogen precursor analog treatment reduces levodopa-induced dyskinesias in parkinsonian monkeys. *Behav Brain Res. 2015 Jun 1;286:328-37.* doi: 10.1016/j.bbr.2015.03.012.
- 6. Oral bioavailability of the ether lipid plasmalogen precursor, PPI-1011, in the rabbit: a new therapeutic strategy for Alzheimer's disease. *Lipids in health and disease, 10, 227.* doi:10.1186/1476-511X-10-227





Healthy Brains Have High Levels of Plasmalogens.



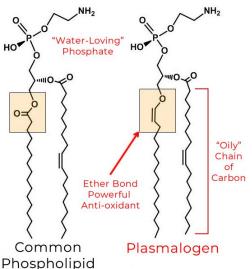
PLASMALOGEN OIL

Liquid or Capsules (Research Only)



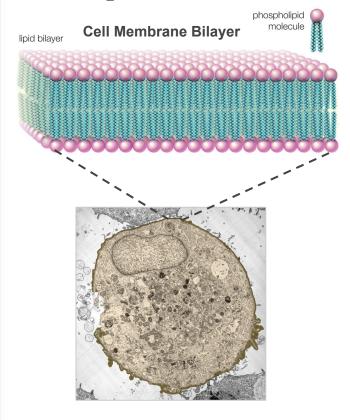
Plasmalogens

- Plasmalogens are essential fatty acids in cell membranes produced by the liver.
- Plasmalogens are <u>potent</u> <u>antioxidants</u> and protect the cell membrane from damage from free radicals
- <u>Low levels</u> of plasmalogens are associated with an increased <u>risk for</u> <u>neurodegenerative disease</u> <u>and early mortality</u>
- Prodrome Sciences has engineered the <u>first</u> <u>bioavailable plasmalogen</u> supplement proven to get past your digestion into your blood.



What are Plasmalogens?

Plasmalogens are members of the "phospholipid" class of molecules. Everyone is familiar with phospholipids in the form of detergents and the bubbles they form. Your cell membranes are actually "bubbles" made of plasmalogens and other detergent-like molecules that self-organize into a "bilayer" creating the cell membrane.





Plasmalogen Biology

Plasmalogens are critical antioxidants, protecting cell membranes from damage by free radicals. As we age, plasmalogen levels decline and so does their protection. Dietary plasmalogen is destroyed during digestion so up until now there has been no way to easily raise low levels.

A New Supplement

Prodrome Sciences has proprietary method for protecting plasmalogens from digestion, enabling the supplementation and restoration of optimal plasmalogen levels.



Inside a single liver cell. Plasmalogens are synthesized in red peroxisomes, mitochondria are purple.