

## Hinz Medical Foods™/NeuroResearch Centers, Inc.™

1150 88th Ave. West - Duluth, MN +1-218-626-2220 | www.HinzMedicalFoods.com

Hyposerotonergic<sup>™</sup> conditions occur when serotonin concentrations are not enough, low, inadequate, delpeted, deficient, or suboptimal on a modified normal diet.™

Hypodopaminergic™ conditions occur when dopamine concentrations are not enough, low, inadequate, depleted, deficient, or suboptimal on a modified normal diet.™

Hypoglutathionemia™ conditions occur when glutathione concentrations are not enough, low, inadequate, depleted, deficient, or suboptimal on a modified normal diet.™

- Giving only *serotonin precursors* can deplete dopamine and glutathione.™
- Giving only *dopamine precursors* can deplete serotonin and glutathione.™
- Giving only glutathione or glutathione precursors can deplete serotonin and dopamine.™

The centrally acting monoamines (monoamines) are serotonin, dopamine, norepinephrine, and epinephrine.

For the management of **hypodopaminergic<sup>™</sup> conditions** or states that may accompany

# **Depression**

**Depression** may be accompanied by symptoms arising from a hyposerotonergic<sup>TM</sup> condition or a hypodopaminergic condition

"Firstly, dopaminergic hypofunction is a common pathophysiologic thread linking RLS and depression, as well as the more severe **hypodopaminergic** condition of Parkinson's disease."

Li, Y. et al. Prospective Study of Restless Legs Syndrome and Risk of Depression in Women Am J Epidemiol. 2012;176(4):279–288

"Psychomotor inhibition, reduced facial expression and decreased speech production in depression are in line with a **hypodopaminergic** state of the respective motor areas." Clausius, N. et al. The relevance of dopamine agonists in the treatment of depression, Neuropsychiatr. 2009;23(1):15-25.

"Low dopamine has been associated with extrapyramidal motor signs, cognitive impairment and depression within each of these disorders.

Wolfe, N. et al. Neuropsychological profile linked to low dopamine: in Alzheimer's disease, major depression, and Parkinson's disease" Journal of Neurology, Neurosurgery, and Psychiatry 1990;53:915-917

"In conclusion, this study showed that serotonin and catecholamines have common and differential roles in the pathophysiology of depression."

Homan, P. et al. Serotonin versus catecholamine deficiency: behavioral and neural effects of experimental depletion in remitted depression. Translational Psychiatry volume 5, pagee532(2015)

## of the **hyposerotonergichypodopaminergic** condition starting point protocol.

A hypodopaminergic

**condition** or state often accompanies depression

(see the right column).

condition or state.

After diagnosing depression,

formulate a differential diagnosis to rule out accompanying issues,

including a **hypodopaminergic** 

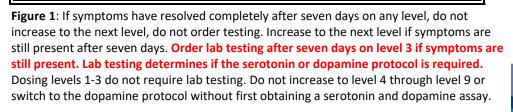
Consider using an empirical trial

Management of the **hypodopaminergic** condition or state which may accompany depression requires establishing dopamine concentrations higher than are possible with modification of the normal diet.

#### Hyposerotonergic / Hypodopaminergic Condition Starting Point Protocol™

	AM	NOON	4 pm
Day-0 Level 1	3 R&R		3 R&R
Day-7 Level 2	3 R&R	3 R&R	2 R&R Sans
Day-14 Level 3	3 R&R	3 R&R	4 R&R Sans
Day 24. If a manta was and atill amount after a group days and level 2 and mait a			

Day-21 - If symptoms are still present after seven days on level 3 submit a specimen for serotonin and dopamine assay to DBS Labs, 1-877-476-7229





### Mucuna Medical Food™

Active ingredient L-dopa Contains no carbidopa. For the management of **hypodopaminergic** conditions when the modified normal diet does not meet the system's needs.