

The PureGenomics™ Cognitive Health & Memory Protocol

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Gene	SNP	Alleles	What it means	Recommendations	Pure Encapsulations® Products
DRD2 (Dopamine Receptor 2)	C957T (rs6277)	TT = -/ TC = -/+ CC = +/+	Decreased response to dopamine; may in turn impact memory, particularly in older individuals.	• l-Tyrosine	• DopaPlus
TPH2 (Tryptophan Hydroxylase)	G703T (rs4570625)	GG = -/ GT = -/+ TT = +/+	This enzyme converts tryptophan to 5-HTP. 5-HTP is a precursor of serotonin, which plays critical roles in mood and sleep management.	• 5-HTP	• 5-HTP 100 mg • SeroPlus
BDNF (Brain Derived Neurotrophic Factor)	Val66Met G196A (rs6265)	Val/Val = -/ Val/Met = -/+ Met/Met = +/+	Associated with deficits in BDNF production. BDNF is important for maintaining mood and cognitive function.	• Curcumin • Magnesium • Zinc • Exercise	• Curcumin 500 with Bioperine® • Magnesium (glycinate) • Zinc 15 [†]
COMT (Catechol O-Methyltransferase)	Val158Met (rs4680)	Val/Val = -/ Val/Met = -/+ Met/Met = +/+	Val: Lower dopamine levels due to faster degradation. Met: Higher dopamine levels due to slower degradation.	If Val/Val or Val/Met: • l-Tyrosine • Rhodiola Rosea	If Val/Val or Val/Met: • DopaPlus • Phyto-ADR
MTHFR (Methylene Tetrahydrofolate Reductase)	C677T (rs1801133)	CC = -/ CT = -/+ TT = +/+	Reduced conversion of folic acid to 5-MTHF; associated with mood concerns.	• Folate (as 5-MTHF)	• Folate 1 000
MTHFR (Methylene Tetrahydrofolate Reductase)	A1298C (rs1801131)	AA = -/ AC = -/+ CC = +/+	Reduced conversion of folic acid to 5-MTHF; associated with mood concerns.	• Folate (as 5-MTHF)	• Folate 1 000

Please note that patients may not require all supplements listed. The selection can be fine-tuned by assessing nutrient levels (refer to suggested monitoring below) or by other testing you would normally include in the patient evaluation.

SNP	How to prioritize nutritional support	Nutritional Monitoring Considerations
DRD2 (C957T)	• Address if memory is an important objective, particularly in older individuals.	• Zinc (serum) or alkaline phosphatase (marker of zinc status)
TPH2 (G703T)	• Address if mood and emotional wellness are important objectives based on clinical evaluation.	• Zinc (serum) or alkaline phosphatase (marker of zinc status) • Magnesium status (RBC) • Trace mineral hair analysis
BDNF (Val66Met)	• High priority. Address this SNP first to provide foundational support for emotional and neurocognitive health.	• Zinc (serum) or alkaline phosphatase (marker of zinc status) • Magnesium status (RBC) • Trace mineral hair analysis
COMT (Val158Met)	• Val/Val (-/-) or Val/Met (-/+): Prioritize only if patient requires support for mood, cognition and mental sharpness. • Met/Met (+/+): Prioritize for mood, relaxation and stress management.	• Magnesium status (RBC)
MTHFR (C677T)	• High priority. Address this SNP first to provide foundational support for emotional and neurocognitive health.	• Serum homocysteine is useful as an indicator of overall methylation competence. It is also a nonspecific method for folate, B ₁₂ and B ₆ monitoring.
MTHFR (A1298C)	• High priority. Address this SNP first to provide foundational support for mood.	• RBC folate or formiminoglutamate (FIGLU), a functional marker of folate status.

[†]Please refer to Douglas Laboratories® Spectramin Chelate as a suggested replacement.

[†]Our Medical Advisors have been retained as consultants in advising Pure Encapsulations.

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Available for download at [PureGenomics.ca](https://www.puregenomics.ca)



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