

The PureGenomics® Mental Health & Memory Protocol[‡]

Developed with Nathan Morris, M.D.,⁺ and James Greenblatt, M.D.⁺

Gene	SNP	Alleles	What it means	Diet & Lifestyle Recommendations	Pure Encapsulations® Products [‡]
BDNF (Brain Derived Neurotrophic Factor)	Val66Met G196A (rs6265)	Met/Met (+/+) Val/Met (-/+) Val/Val (-/-)	Associated with deficits in BDNF production. BDNF is important for maintaining mood and cognitive function.	(+/+) or (-/-) <ul style="list-style-type: none"> Regular exercise is one of the best ways to support your body's ability to make BDNF. Your diet should include fruits, vegetables and tea, which are rich in polyphenols, and fermented foods such as kefir or yogurt, which provide beneficial bacteria that support natural BDNF production. Include zinc-rich foods such as spinach, nuts, seeds, lean meats and omega-3 fatty acids from fish such as wild salmon, sardines and herring. (-/-) <ul style="list-style-type: none"> No recommendations 	(+/+) or (-/+) <ul style="list-style-type: none"> Magnesium (glycinate) Lithium (orotate) 5 mg or Lithium liquid Trace Minerals CurcumaSorb Mind (-/-) No recommendations
COMT (Catechol O-Methyltransferase)	Val158Met (rs4680)	Met/Met (+/+) Val/Met (-/+) Val/Val (-/-)	Val: Lower dopamine levels due to faster degradation. Met: Higher dopamine levels due to slower degradation.	(+/+) or (-/+) <ul style="list-style-type: none"> Consider relaxation techniques, psychotherapy, meditation and music therapy to help support your natural ability to handle stress. Ensure adequate magnesium intake, and minimize or avoid the use of stimulants. (-/-) <ul style="list-style-type: none"> Consume adequate protein, which provides amino acid precursors of dopamine and other neurotransmitters. Exercise may also help to support daily cognitive function, alertness and mood. 	(+/+) or (-/+) <ul style="list-style-type: none"> Lithium (orotate) 5 mg Magnesium (glycinate) Adenosyl/Hydroxy B₁₂ DIM Detox SAMe PureGenomics® Multivitamin (-/-) DopaPlus Rhodiola Rosea
DRD2 (Dopamine Receptor 2)	C957T (rs6277)	T/T (+/+) C/T (-/+) C/C (-/-)	The T allele is associated with altered dopamine signaling. This may affect short-term memory performance.	(+/+) or (-/+) <ul style="list-style-type: none"> Consume a diet high in protein, fiber, whole grains, vegetables and fruits. Emphasize lean meats, poultry, eggs and fish as protein sources, which are rich sources of amino acid precursors of dopamine and other neurotransmitters. Your health care provider will determine whether a supplement is right for you. This SNP may alter the way you respond to antipsychotic agents. (-/-) <ul style="list-style-type: none"> No recommendations 	(+/+) or (-/+) <ul style="list-style-type: none"> l-Tyrosine DopaPlus (-/-) No recommendations
MTHFR (Methylene Tetrahydrofolate Reductase)	A1298C (rs1801131)	C/C (+/+) A/C (-/+) A/A (-/-)	Reduced ability to activate folates to 5-MTHF.	(+/+) or (-/+) <ul style="list-style-type: none"> Eat plenty of green, leafy vegetables, which provide folate in a form the body can use. (-/-) <ul style="list-style-type: none"> No recommendations 	(+/+) or (-/+) <ul style="list-style-type: none"> Folate 1,000 PureGenomics® Multivitamin (-/-) No recommendations
MTHFR (Methylene Tetrahydrofolate Reductase)	C677T (rs1801133)	T/T (+/+) C/T (-/+) C/C (-/-)	Reduced ability to activate folates to 5-MTHF.	(+/+) or (-/+) <ul style="list-style-type: none"> Eat plenty of green, leafy vegetables, which provide folate in a form the body can use. (-/-) <ul style="list-style-type: none"> No recommendations 	(+/+ or (-/+) <ul style="list-style-type: none"> Folate 1,000 PureGenomics® Multivitamin (-/-) No recommendations
TPH2 (Tryptophan Hydroxylase)	G703T (rs4570625)	T/T (+/+) G/T (-/+) G/G (-/-)	This enzyme converts tryptophan to 5-HTP, the precursor of serotonin, which is important for emotional well-being.	(+/+) or (-/+) <ul style="list-style-type: none"> Your diet should emphasize fruits, vegetables, fiber, and adequate protein, all of which provide essential nutrients and phytochemicals that support emotional wellness. Emphasize protein sources such as lean meats and poultry, which are rich in tryptophan, a precursor of serotonin. A supplement may be recommended if other factors indicate the need for mood support.[‡] (-/-) <ul style="list-style-type: none"> No recommendations 	(+/+) or (-/+) <ul style="list-style-type: none"> 5-HTP 50 mg SeroPlus (-/-) No recommendations

Please note that these SNPs are markers of genetic predisposition supported by a limited, yet evolving body of evidence. Due to the many factors that modify their effects on physiology, a positive result does not necessarily mean that any or all of the recommended supplements are needed. Consider additional methods, such as those listed under Assessment Recommendations, to determine the need for support.

⁺Our Medical Advisors are retained by Pure Encapsulations.

PureGenomics® nutritional information is not intended for use in the diagnosis, cure, mitigation, treatment or prevention of disease. This information is intended for use by healthcare practitioners, is for informational purposes only, and does not establish a doctor-patient relationship. Please be sure to consult your physician before taking this or any other product. Consult your physician for any health problems.

[‡]These statements have not been evaluated by the Food & Drug Administration. These products are not intended to diagnose, treat, cure or prevent any disease.

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Gene and SNP	Assessment Recommendations*
BDNF (Val66Met)	No assessment methods are currently available for this SNP.
COMT (Val158Met)	Self-reported stress levels, sleep satisfaction and mood.
DRD2 (C957T)	No assessment methods are currently available for this SNP.
MTHFR (A1298C)	Serum homocysteine Men: <11.4 µmol/L Women: <10.4 µmol/L
MTHFR (C677T)	Serum homocysteine Men: <11.4 µmol/L Women: <10.4 µmol/L
TPH2 (G703T)	No assessment methods are currently available for this SNP.

*Reference ranges were obtained from Dynacare. These ranges apply to adults only.

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