The PureGenomics® Glucose Homeostasis Protocol‡
Developed with Nathan Morris, M.D.*

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| ADRA2A | rs553668 | A/A (+/)      | The A allele is associated with increased alpha-adrenergic receptor expression, which may affect insulin release by the pancreas. | (+/-) or (+/+)  
  - Consider relaxation techniques, meditation or related stress management strategies.  
  - No recommendations | (+/-) or (+/+)  
  - Metabolic Xtra  
  - No recommendation |
|        |         | A/G (+/-)     |                                                                               |                                                                         |                               |
|        |         | G/G (-/-)     |                                                                               |                                                                         |                               |
| TCF7L2 | rs7903146| T/T (+/)      | The T allele may influence glucose homeostasis.                               | (+/-) or (+/+)  
  - Follow a Mediterranean diet or similar, reduce carbohydrate intake, eliminate sugars, and exercise regularly.  
  - No recommendations | (+/-) or (+/+)  
  - Metabolic Xtra  
  - No recommendation |
|        |         | T/C (+/-)     |                                                                               |                                                                         |                               |
|        |         | C/C (-/-)     |                                                                               |                                                                         |                               |
| SLC30A8| rs11558471| A/A (+/)      | The A allele may influence glucose homeostasis. Zinc has been shown to modify this effect. | (+/-) or (+/+)  
  - Ensure adequate zinc intake.  
  - No recommendations | (+/-) or (+/+)  
  - Zinc 15  
  - No recommendation |
|        |         | A/G (+/-)     |                                                                               |                                                                         |                               |
|        |         | G/G (-/-)     |                                                                               |                                                                         |                               |

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 below, to determine the need for support.‡

**Gene and SNP Assessment Recommendations**

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| ADRA2A | rs553668| Fasting glucose: Adults: 70 - 100 mg/dL  
  HbA1c: Adults: 4.0 - 5.6%  
  Serum cortisol: AM: 7 - 25 mcg/dL, PM: 2 - 14 mcg/dL |
| TCF7L2 | rs7903146| Fasting glucose: Adults: 70 - 100 mg/dL  
  HbA1c: Adults: 4.0 - 5.6%  
  Or other related metabolic testing |
| SLC30A8| rs11558471| Alkaline phosphatase (a marker of zinc status): Men: 45 - 115 U/L, Women: 37 - 144 U/L  
  Fasting glucose: Adults: 70 - 100 mg/dL  
  HbA1c: Adults: 4.0 - 5.6%  
  Or other related metabolic testing |

*Reference ranges were obtained from LifeLabs Clinical Laboratories. These ranges apply to adults only.

†Dr. Morris is a retained consultant for 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.

Available for download at PureEncapsulations.com/puregenomics-protocols