

GeneElite Analysis

Category	Gene	Variation %	Physiological Impact	Behaviour Modification Considerations	
				Nutrition	Physical Activity
Body Fat Metabolism	ADRB-2	Neg 20%	Lipid metabolism, variation indicates reduced fat burning tendency. Need to increase lean muscle mass to increase metabolism	Manage diet to assist in keeping body fat down. General response will be a bit slower.	Weight training to increase muscle mass and metabolism. Heavy weights large muscle groups, 6 to 8 reps, 3 to 4 sets. Cardi exercise at 60 to 70% MHR, 30 to 60 min x 3 per week
	PPAR-y2	Pos 30%	Insulin sensitivity, Reduced fat metabolism by liver, leads to decreased risk of T1I diabetes and CVD.	If normal gene and overweight need to reduce fat, modify diet, reduce saturated fats, high protein, low carbs, high fibre, low GL. Reduce fructose.	Cardio exercise in FB zone, 60 to 70% MHR for 30 to 60 min per three times per week
Lean Muscle Mass Development	ACE	Neg 35%	Cardiovascular Health - Narrowing of blood vessels, insulin resistance, elevated BP	Low GL diet. Add supplement containing antioxidants, Vit A (5,000 IU), Vit C (250mg) and Vit E (200 IU) daily.	Increase low level cardio respiratory physical activity. If high BP beware of intense weight lifting and effort.
	eNOS-3	Neg 30%	Cardiovascular Health - Reduced VO2 Max, lower aerobic performance	Low GI diet. Add supplement containing antioxidants, Vit A (5,000 IU), Vit C (250mg) and Vit E (200 IU) daily.	Increase physical activity. Increase intensity of interval type training to achieve increased anaerobic and aerobic thresholds effect. Eg, short bursts of intense activity, two times per week, 6 x 30 seconds 90% MHR, 60 to 90 seconds recovery
	MTHFR	Neg 55%	Cardiovascular Health - Increased homocysteine in body > DVT, Stroke, pulmonary embolism	Increase consumption of allium vegetables (onions, garlic), Increase B vitamins especially B6, B12 & folate. Add Folic Acid supplement 800 mcg, Vit B6 (15mg) and B12 (20 mcg)	Manage other risk factors, regular low level cardio activity, 60 to 70% MHR, 30 to 60 minutes most days.
	HIF-1	Pos 20%	Cardiovascular health - increased red blood cell & blood vessel production & metabolism		Body will respond well to interval type training, Eg. 4 to 6 times, 30 to 60 sec at 80 to 90% MHR
	MCT-1	Neg 50%	Muscle Health - lactic acid removal from muscles by 35 to 40%.		Recovery sessions to aid lactic metabolism, massage, cold/hot baths, gentle exercise, non weight bearing to aid recovery. ie, cycling, swimming.
	Col1A1	Neg 10%	Bone density - Increased risk of osteoporosis	Increase dietary Ca increase dairy, consider low fat alternatives if weight, cholesterol is an issue. Consider Ca supplement (1,300 mg daily, Vitamin D 800 IU.	Weight bearing exercise encourage, modify activities (don't necessarily avoid) that may increase risk of bone shock.
Recovery	TNFa	Neg 30%	Inflammation - Overstimulation of healing -> CVD, joint pain, asthma, soft tissue damage	Reduce Omega 6 fats - saturated, hydrogenated and trans fats that promote inflammation. Increase Omega 3 fats (cold water fish, tuna, sardines, salmon) weekly and Omega 9 fats - Olive oils (esp uncooked). Omega 3 (700 - 1,400 mg) supplement daily. Maintain hydration.	Recovery sessions to aid muscle recovery, massage, cold/hot baths, gentle exercise, non weight bearing to aid recovery. ie, cycling, swimming. Increase rest periods between intense sessions. May increase training effect of sessions, and with good management and full recovery can stimulate tissue
	IL-6	Neg 50%	Inflammation - Overstimulation of healing -> CVD, joint pain, asthma, soft tissue damage	Reduce Omega 6 fats - saturated, hydrogenated and trans fats that promote inflammation. Increase Omega 3 fats (cold water fish, tuna, sardines, salmon) weekly and Omega 9 fats - Olive oils (esp uncooked). Omega 3 (700 - 1,400 mg) supplement daily. Maintain hydration	Recovery sessions to aid muscle recovery, massage, cold/hot baths, gentle exercise, non weight bearing to aid recovery. ie, cycling, swimming. Increase rest periods between intense sessions. May increase training effect of sessions, and with good management and full recovery can stimulate tissue
	MnSOD	Neg 50%	Antioxidation - reduced antioxidation by 30 to 40% -> CVD, chronic inflammation, accelerated ageing	Increase folate. Add supplement containing antioxidants, Vit A (5,000 IU), Vit C (250mg) and Vit E (200 IU) daily. Maintain hydration	Recovery sessions to aid muscle recovery, massage, cold/hot baths, gentle exercise, non weight bearing to aid recovery. ie, cycling, swimming. Increase rest periods between intense sessions. May increase training effect of sessions, and with good management and full recovery can stimulate tissue
Nutrition	CYP1A1	Neg 10%	Antioxidation - increased free radical production by 50%	Increase folate. Add supplement containing antioxidants, Vit A (5,000 IU), Vit C (250mg) and Vit E (200 IU) daily.	
	GSTP1	Neg 60%	Increased accumulation of free radical & toxins	Diets include regular portions of cruciferous (5 times per week) (broccoli, cauliflower) and allium (daily) vegetables (onions, garlic). Add broccoli extract and allium supplement if required. Increase folate. Add supplement containing antioxidants, Vit A (5,000 IU), Vit C (250mg) and Vit E (200 IU) daily.	
	GSTT1	Absence in 25% NEG	Increased accumulation of free radical & toxins. Risk of lung cancer drops by upto 80% in individuals lacking GSTM1 and /or GSTT1 genes when consumption of cruciferous vegetables is high.	Diets include regular portions of cruciferous (5 times per week) (broccoli, cauliflower) and allium (daily) (onions, garlic) vegetables. Add broccoli extract and allium supplement if required.	
	GSTM1	Absence in 45% NEG	Increased accumulation of free radical & toxins. Risk of lung cancer drops by upto 80% in individuals lacking GSTM1 and /or GSTT1 genes when consumption of cruciferous vegetables is high.	Diets include regular portions of cruciferous (5 times per week) (broccoli, cauliflower) and allium (daily) vegetables (onions, garlic). Add broccoli extract and allium supplement if required.	