

Diet & Fitness testing

Amby Lab is making high-quality genetic Diet & Fitness testing applying SNP microarray genotyping to identify personal traits encoded in human genome.

Diet & Fitness testing detects phenotypes that most completely characterize the genetic predisposition to the traits and which should be taken into account preparing individual dietary guideline and exercise program. As a result, client receives a general advice on individual characteristics and calculation of the main parameters of the personal diet (optimal nutrition calorie count, ratio of carbohydrates, protein & fat, ratio of simple and complex carbohydrates etc.), the menu for each meal of the day and person exercise program.

Amby Lab identifies alterations in 279 unique polymorphic genetic markers (SNP): 102 SNPs to optimize personal diet guideline and 177 SNPs to optimize personal fitness program.

Personal phenotypes are listed below:

PHENOTYPES LIST	
DIET	FITNESS
Achilles tendinopathy	Acute alcohol sensitivity
Anaerobic alactic muscular power	Bitter taste
Circadian rhythmicity	Body Fat percent
Concussion	Body mass index
Diastolic blood pressure	Caffeine metabolism
Endurance athletic performance	Calcium
Endurance phenotype	Decreased lipid taste
Estradiol level	Effect of fat intake reduction on weight loss
Estradiol to testosterone ratio	Extream meal size
Fast twitch fiber	Extream snack behavior
Knee extension, Isometric at 150°	Fat mass
Knee extension, Torque at 120°	HDL
Knee extension, Torque at 60°	Higher intakes of sugars
Knee flexion, Isometric at 120°	Homocysteine
Knee flexion, Isometric at 150°	Hypertriglyceridemia
Knee flexion, Torque at 60°	Iron
Left ventricular mass	Lactose intolerance
Leptin level	L-ascorbic acid level
Ligament ruptures	LDL
Max VO2	Monounsaturated fat
NO-mediated vasodilatation	Muscle fat mass index
Peak VO2	Muscle mass
Power phenotype	Obese, Circadian rhythmicity

Proportion of Type I muscle fibers	Retinol
Rating of perceived exertion	Satiety Responsiveness
Resistance exercise training responses	Selenium
Roufi er index	Taste sensitivity to sucrose
Shoulder dislocations	TC
Single muscular contraction power	TG
Systolic blood pressure	Total energy intake
Testosterone level	Total protein intake
Training response muscle hypertrophy	Vitamin B12
Unfavourable outcome after head injury	Vitamin B2
Weight reduction difficulties	Vitamin B6
	Vitamin B9
	Vitamin D insufficiency
	Vitamin E
	Weight