PRECISION HEALTH

PRECISYA

HEALTH

PANEL

DIABETES

ENGLISH VERSION

Patient data

Name	Sample
Age	
Gender	F
Test date	
Report date	12/09/2025
Prescriber	
Health insurance	

What does testing make possible?

Based on personalized and comparative gene studies, Precysia looks for genetic alterations among the billions of information a patient's DNA carries, and in-depth information on each individual's predispositions to developing disease, as well as recommendations and specific information for their correction and prevention, whenever such information is available.

Technical Manager: Dr. Eyal Cohen, MD

WARNING

The values of the results of genetic tests are not diagnostic, but show trends that are influenced by physiological, pathological conditions, use of medications and other personal conditions of the examinee.
Only your clinician is able to correctly interpret these results and to prescribe the most appropriate treatment for you, and the company is not responsible for any treatment based on the results.
If necessary, our science team is available to discuss the results with the attending clinician upon request.

The genetic test

The genetic examination is the most current and advanced technological leap in the health area, mainly for the clinical area because DNA is the true **Instruction Manual** of the individual.

In DNA, all individual needs, susceptibilities and psycho-behavioral, structural, functional and reaction characteristics that an individual has and will have throughout his life are determined with high precision.

The genetic examination is within the modern disruptive concept of Genetic Identity where the individual is able to have all the precise and personalized information necessary to, from them, know what to do to achieve more Health, Vitality, Beauty and Longevity.

The current level of our technology, allows the high level of precision and reliability of our tests in the fundamental aspects for a genetic test.

In the WGS (total genome sequencing) extraction that provides 80 million SNPs (polymorphisms) - in the market in general we have up to 800 SNPs - and in the reading and analysis of the extraction done by our own AI system (Artificial Intelligence) , through a complex algorithm, which considers, among other factors, the number, presence and magnitude of the SNPs related to the analyzed condition.

How to interpret the exam:

We adopted a color bar divided into 5 levels of magnitude.

Each genetic condition (whether characteristic, need, benefit or susceptibility) ranges from a low to a very high magnitude resulting from the exam.

These result levels are calculated using a complex algorithm, developed internally, which considers, among other factors, the quantity, presence and magnitude of the SNPs related to the condition.

The result will then appear as follows:

FIRST PART

The first part interprets the magnitudes of each condition, using an algorithm that considers the following aspects:

- Presence or Absence of Polymorphism
- Amount of Polymorphisms present for the condition
- Magnitude of each Polymorphism
- Validation of the Scientific Base

Due to the decimal places of the magnitudes of the results that must be strictly taken into account in the results, we present 5 divisions, which should be interpreted as follows:

🔵 indicates that the result shown is LOW

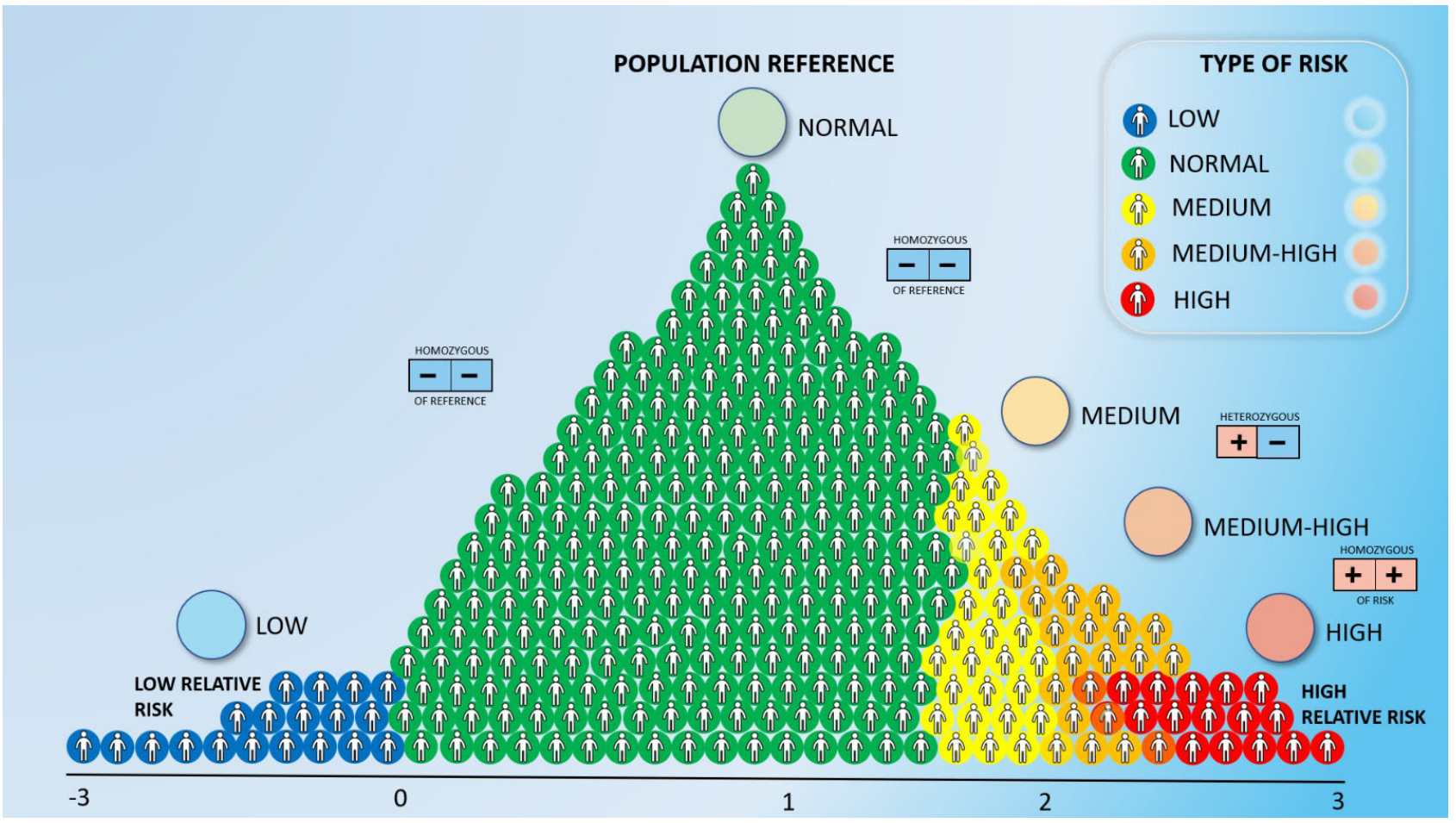
🟢 indicates that the result shown is NORMAL

🟡 indicates that the result shown is MEDIUM-NORMAL

🟠 indicates that the result shown is MEDIUM-HIGH

🔴 indicates that the result shown is HIGH

⚪ indicates that it was not possible to calculate a result

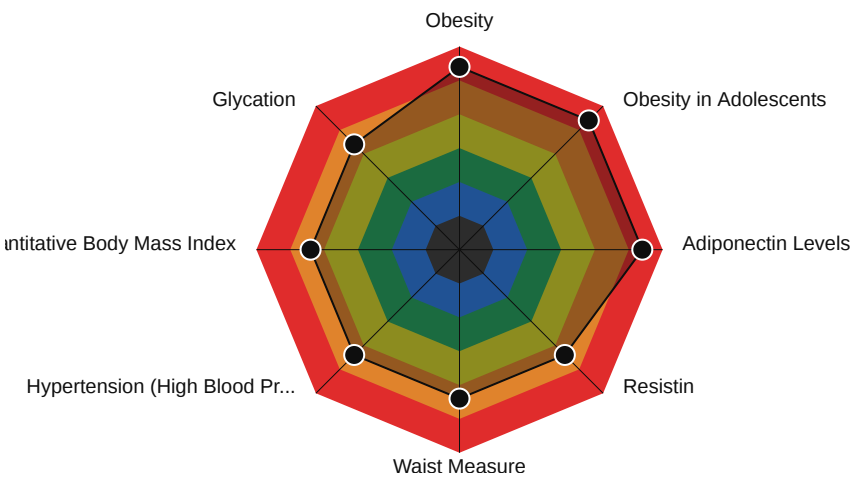


Important notes about the results:

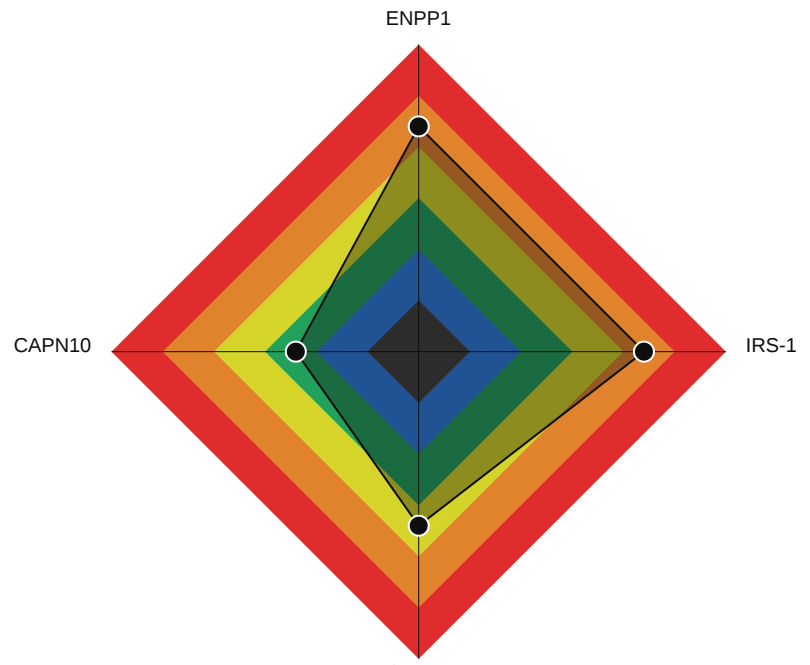
- LOW refers to a predisposition to lack or low susceptibility.
- NORMAL often refers to the majority of the population, in which the incidence of Needs or Susceptibilities is considered normal.
- MEDIUM-NORMAL refers to medium susceptibility. Usually heterozygous at-risk individuals.
- MEDIUM-HIGH refers to high susceptibility. Usually individuals with homozygous or heterozygous alleles at risk.
- HIGH refers to high susceptibility. Usually individuals with homozygous risk alleles.
- If there is no filled sphere in the result, it indicates that the polymorphism (or polymorphisms) related to the specific condition were not detected, or that, as of the date of the report, there are no solid scientific evidences that justify a result.

MOST RELEVANT CONDITIONS BY CATEGORY

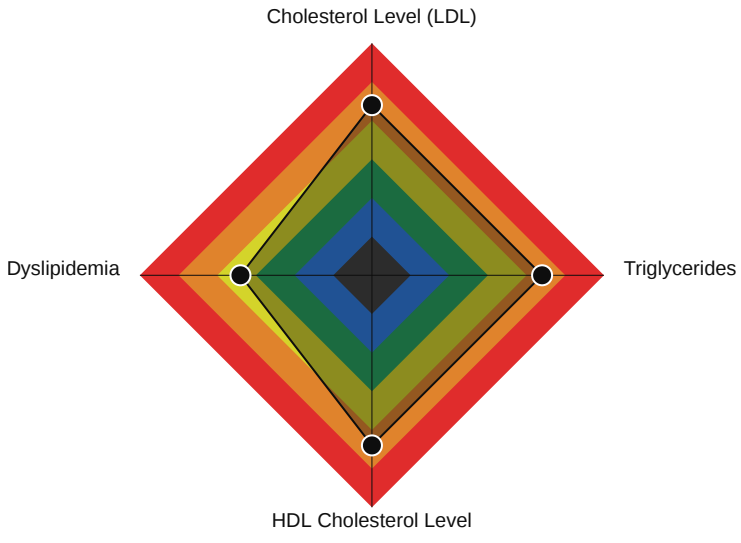
OTHER FACTORS



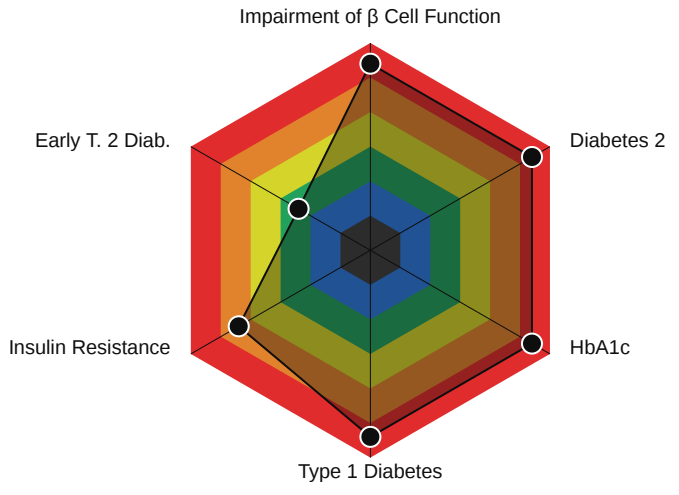
REACTION IN CELLS



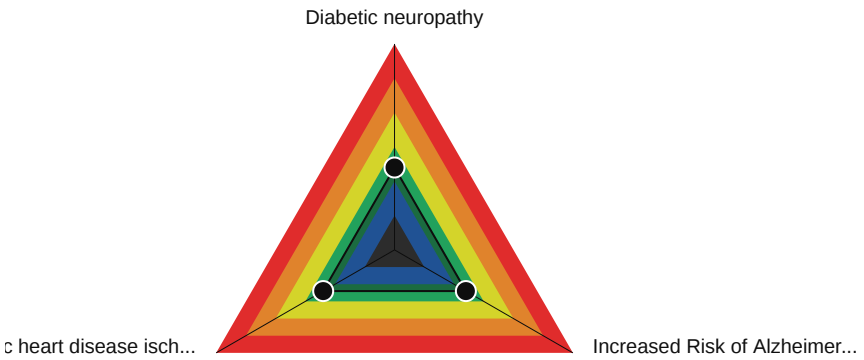
LIPID PROFILE



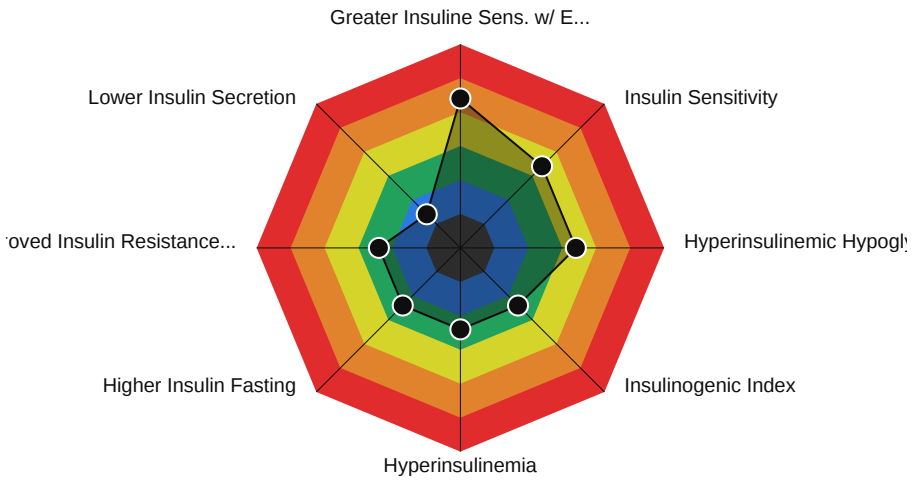
DIABETES



CONSEQUENCES OF DIABETES

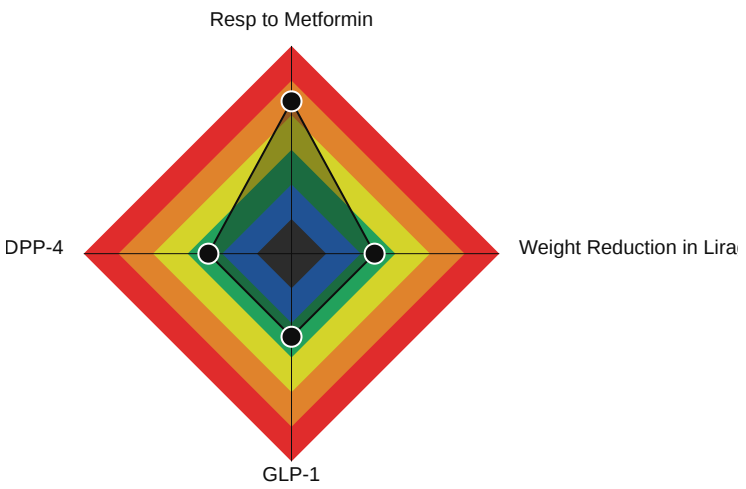


INSULIN

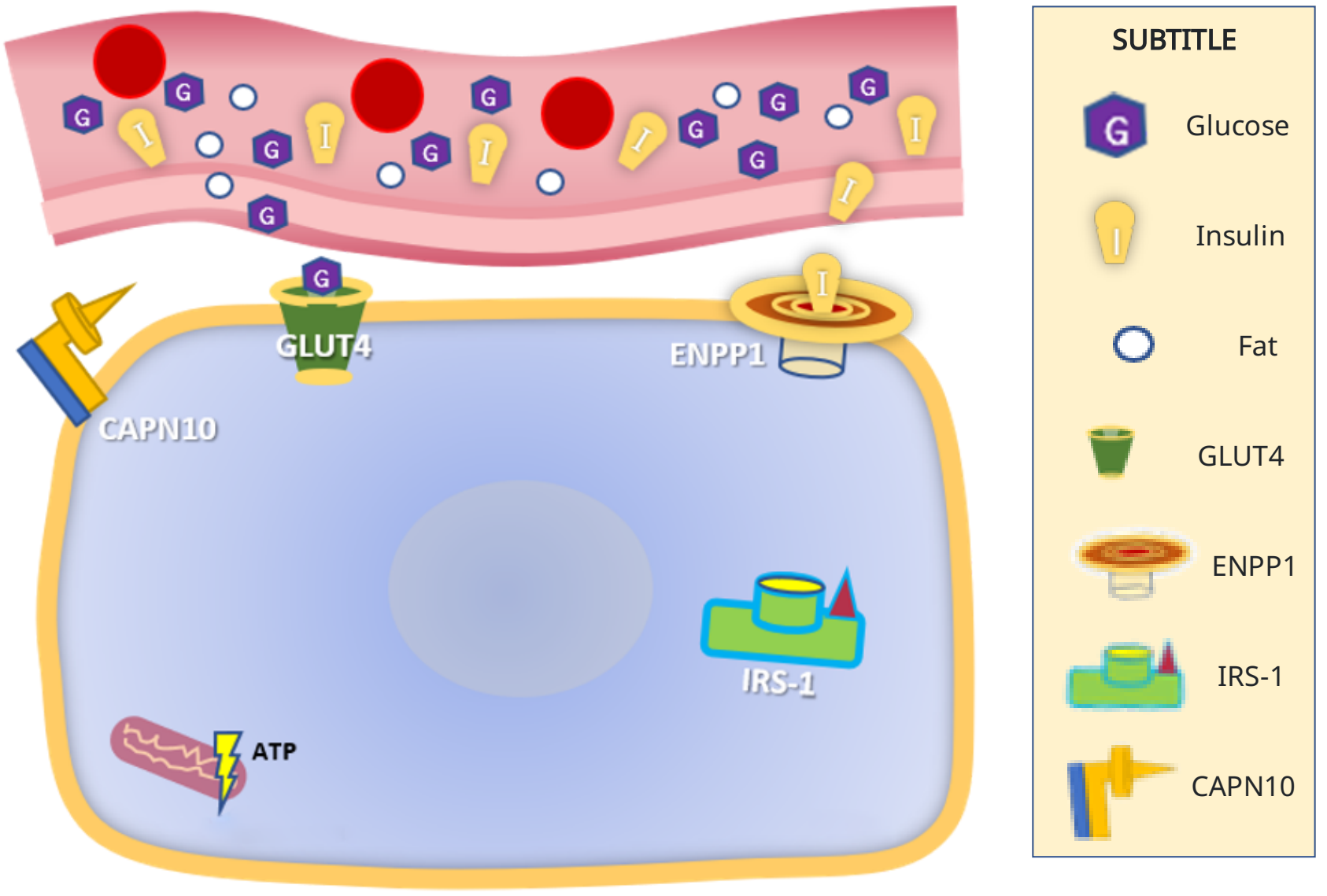


MOST RELEVANT CONDITIONS BY CATEGORY

PHARMACOGENETICS



CELL



RESULTS

CAPN10	ENPP1	GLUT4	IRS-1
-	-	-	-

PRECISION HEALTH
PRECISYA

SUMMARY OF RESULTS

1. Other Factors

Waist Measure	34	-	-	14	+	-	2	+	+	🟠	MEDIUM-HIGH
Obesity in Adolescents	2	-	-	0	+	-	1	+	+	🔴	HIGH
Obesity	239	-	-	21	+	-	3	+	+	🔴	HIGH
Glycation	5	-	-	1	+	-	0	+	+	🟠	MEDIUM-HIGH
Uric Acid (Concentration)	3	-	-	0	+	-	1	+	+	🟡	MEDIUM
Hypertension (High Blood Pressure)	28	-	-	8	+	-	2	+	+	🟠	MEDIUM-HIGH
Adiponectin Levels	4	-	-	3	+	-	1	+	+	🔴	HIGH
C-reactive protein	4	-	-	3	+	-	0	+	+	🟡	MEDIUM
Polycystic Ovary Syndrome	12	-	-	1	+	-	1	+	+	🟠	MEDIUM-HIGH
Fasting Glucose Level Increase	4	-	-	1	+	-	1	+	+	🟡	MEDIUM
Less Use of Glucose After Intake of Carbohydrates	0	-	-	1	+	-	0	+	+	🟡	MEDIUM
Quantitative Body Mass Index	25	-	-	7	+	-	3	+	+	🟠	MEDIUM-HIGH
Decline of NAD	2	-	-	0	+	-	0	+	+	🟢	NORMAL
Noradrenaline	1	-	-	1	+	-	0	+	+	🟡	MEDIUM
Leptin	3	-	-	3	+	-	0	+	+	🟡	MEDIUM
Resistin	3	-	-	0	+	-	1	+	+	🟠	MEDIUM-HIGH
PI3K	6	-	-	0	+	-	0	+	+	🟢	NORMAL
AKT	2	-	-	2	+	-	1	+	+	🟠	MEDIUM-HIGH
PTEN	0	-	-	0	+	-	0	+	+	⚪	UNDEFINED
P70S6K	1	-	-	0	+	-	0	+	+	⚪	UNDEFINED
GSK-3	1	-	-	0	+	-	0	+	+	🟢	NORMAL
INSR	0	-	-	1	+	-	0	+	+	🟡	MEDIUM
Wolfram Syndrome 1	8	-	-	0	+	-	0	+	+	🟢	NORMAL
Obesity in Type 2 Diabetes Patients	0	-	-	1	+	-	0	+	+	🟠	MEDIUM-HIGH

2. Reaction in Cells

ENPP1	1	-	-	1	+	-	0	+	+	🟠	MEDIUM-HIGH

IRS-1	1	-	-	2	+	-	0	+	+	🟠	MEDIUM-HIGH
GLUT4	2	-	-	2	+	-	0	+	+	🟡	MEDIUM
CAPN10	3	-	-	0	+	-	0	+	+	🟢	NORMAL

3. Lipid Profile

HDL Cholesterol Level	28	-	-	9	+	-	3	+	+	🟠	MEDIUM-HIGH
Cholesterol Level (LDL)	23	-	-	7	+	-	3	+	+	🟠	MEDIUM-HIGH
Triglycerides	26	-	-	12	+	-	2	+	+	🟠	MEDIUM-HIGH
Dyslipidemia	3	-	-	4	+	-	0	+	+	🟡	MEDIUM

4. Diabetes

Type 1 Diabetes	36	-	-	3	+	-	4	+	+	🔴	HIGH
Type 2 diabetes	58	-	-	8	+	-	3	+	+	🔴	HIGH
Early Type 2 Diabetes	9	-	-	1	+	-	0	+	+	🟢	NORMAL
Insulin Resistance	5	-	-	5	+	-	2	+	+	🟠	MEDIUM-HIGH
Circulating Glycated Hemoglobin (HbA1c)	7	-	-	0	+	-	1	+	+	🔴	HIGH
Impairment of β Cell Function	0	-	-	0	+	-	3	+	+	🔴	HIGH

5. Consequences of Diabetes

Diabetic neuropathy	0	-	-	2	+	-	0	+	+	🟢	NORMAL
Risk of amputation in case of diabetic foot ulcer	1	-	-	0	+	-	0	+	+	⚪	UNDEFINED
Diabetic retinopathy	1	-	-	0	+	-	0	+	+	⚪	UNDEFINED
Increased Risk of Alzheimer's in Diabetics (T2)	0	-	-	1	+	-	0	+	+	🟢	NORMAL
Diabetic heart disease ischemic	2	-	-	0	+	-	0	+	+	🟢	NORMAL

6. Insulin

Hyperinsulinemia	4	-	-	0	+	-	0	+	+	🟢	NORMAL
Higher Insulin Fasting	4	-	-	0	+	-	0	+	+	🟢	NORMAL
Hyperinsulinemic Hypoglycemia of Childhood (HHI)	207	-	-	0	+	-	1	+	+	🟡	MEDIUM
Greater Insulin Sensitivity with Physical Exercise	0	-	-	0	+	-	1	+	+	🟠	MEDIUM-HIGH
Insulinogenic Index	2	-	-	2	+	-	0	+	+	🟢	NORMAL
Insulin Sensitivity	1	-	-	1	+	-	1	+	+	🟡	MEDIUM

Lower Insulin Secretion	6	-	-	0	+	-	0	+	+	LOW
Improved Insulin Resistance in Diets with More Protein	1	-	-	0	+	-	0	+	+	NORMAL

7. Pharmacogenetics

Response to Metformin	4	-	-	0	+	-	1	+	+	MEDIUM-HIGH
Weight Reduction in Liraglutide Treatment	1	-	-	0	+	-	0	+	+	NORMAL
GLP-1	2	-	-	0	+	-	0	+	+	NORMAL
DPP-4	0	-	-	1	+	-	0	+	+	NORMAL

1. Other Factors

Waist Measure

MEDIUM-HIGH

Extremely important measure to verify the risk that a person has of suffering from cardiovascular disease and stroke. Result in orange or red indicates a tendency to a larger waist measurement.

Genes

ADIPOQ, APOA1, APOE, C5ORF67, CCDC40, CDH12, CLOCK, ELP4, ESR1, FTO, GCH1, GCKR, GDAP1, HMGCR, IL-15, IL-1A, IL-1B, INTERGENIC, KLF7, MC4R, MYO1B, OVCH2, PCSK1, PER2, PLIN1, PPM1L, SH2B1, SLC6A2, SSTR2, TXN, UCP2, UCP3

Obesity in Adolescents

HIGH

According to research, the frequency of rs8179183, a SNP in LEPR , was significantly different between obese and healthy participants, with 5.3% more obese adolescents possessing a specific gene copy (the C allele) of rs8179183 compared to controls. It is important to note that this SNP causes a so-called missense mutation and, as a result, the role of leptin in regulating food intake and body temperature is impaired. Further analysis revealed that rs8179183 was associated with serum triglyceride levels after adjustment for age and BMI. Adolescents with the GC or CC rs8179183 genotypes had more triglycerides than those with GG.

Genes

GPX4, LEPR, MTNR1B

Obesity

HIGH

Here, we evaluated a set of genes whose polymorphisms were associated with a higher risk of developing obesity. Result in orange or red indicates a greater tendency to obesity.

Genes

AATK, ACMSD, ADCYAP1, ADIPOQ, ADRA2A, ADRB2, ADRB3, ADSS, AGRP, AK8, AKT1, ALLC, ANKAR, ANKK1, APOA1, APOA2, APOA4, APOA5, APOB, APOE, ARHGAP11A, ARHGAP24, ARMC4, ASIC2, ASTN2, AUTS2, BDNF, BICC1, BICD1, C2CD4C, C8ORF34, CA8, CADM1, CAMK2A, CCDC33, CCDC77, CCK, CD46, CDCA3, CDHR3, CELF2, CLOCK, COL4A1, COLEC12, CSMD1, CYP2E1, DAPL1, DDX60L, DLC1, DLG2, DMRT1, DOCK8, ECT2, EEPD1, EHF, EVA1A, FABP2, FAM129A, FAM19A2, FAM209B, FARP1, FLJ33534, FSIP1, FTO, GABPB1, GCH1, GHRL, GHSR, GMDS, GPC5, GSG1L, GSTM1, HDAC9, IFI16, IFNGR2, IL-1A, IL-1B, IL-1RN, IL-6, INSIG2, INTERGENIC, JDP2, KCNB1, KCNMA1, KIF6, KIRREL, KLF7, LEP, LEPR, LGALS17A, LHPP, LINC00704, LINC01299, LINC01500, LIPC, LPP, MC4R, MDFIC, MSRA, NAT2, NDUFA8, NFE2L2, NIPSNAP3B, NLRP8, NMNAT2, NPM2, NXPH1, PCDH9, PCSK1, PFKP, PIP4K2A, PKNOX2, PLEKHG1, PLIN1, POC5, POMC, PPARG, PPARGC1A, PPARGC1B, PPM1H, PTPRD, PTPRN2, PVALB, PYY, RAB17, RASEF, RBBP6, RBFOX1, RIC3, RLN3, RPTOR, RSU1, RYR2, S100P, SCG3, SDC3, SERPINA12, SLC22A2, SLC22A23, SLC29A3, SMYD3, SNRPN, SOCS3, SORBS1, SPAG16, SPOCK3, STON2, SYT1, TBC1D1, TCF4, TCF7L2, TM9SF2, TMEM18, TMEM229B, TMEM45B, TMOD1, TNFRSF1B, TPTE2P1, TRABD2B, TRAPPC9, TRIM66, TUB, UCP1, UCP2, UGT2B7, UNC13A, UNC5C, VSIG10, WDPCP, WDR11-AS1, ZBTB46, ZNF536

1. Other Factors

Glycation

MEDIUM-HIGH

Glycation is a process that joins a glucose molecule with a protein molecule, such as collagen and elastin - the same ones responsible for keeping the skin younger and firmer. This union destabilizes the protein and causes it to break down. It is an action as harmful as that of free radicals, promoting the formation of wrinkles and causing loss of elasticity and tone.

Recommendations

Reduce your carbohydrate intake. Avoid high-fat foods such as butter and margarine, meats and cheeses (especially Parmesan cheese), processed products such as breakfast cereals, cookies, and chips or fast food potatoes. The meats that produce the most AGEs in descending order are beef, followed by chicken, pork, fish and eggs. Lamb meat produces the least AGEs. A simple technique, which consists of marinating the meat, reduces the formation of AGEs, due to the presence of acidic ingredients (such as vinegar, lemon and pineapple). Meats that marinate for an hour form half the amount of AGEs. Some foods and seasonings can also be used in the preparation to reduce the production of AGEs, such as garlic (because it has allylcysteine), substances rich in phenolic compounds such as wine and teas (green and matte) and foods rich in vitamin C (lemon, orange, acerola).

Genes

AGER, GLO1

Uric Acid (Concentration)

MEDIUM

Uric acid is a substance present in our body that comes from our metabolism, that is, we produce uric acid and this production is responsible for 90% of all uric acid in the body.

Genes

ABCG2, SLC2A9

Hypertension (High Blood Pressure)

MEDIUM-HIGH

Also called High Blood Pressure, it is a condition in which the force of the blood against the wall of the arteries is too great.

Genes

ACE, ADD1, AGT, AGTR1, APOE4, ATP2B1, BCAT1, CALCA, CLCN6, CNNM2, CYP11B2, CYP17A1, CYP4A11, EDN1, EDNRA, GRK4, GUCY1A3, HIVEP2, IL-6, NEDD4L, NOS3, PPARG, STK39, TRPM6, UMOD

1. Other Factors

Adiponectin Levels

HIGH

Adiponectin is a protein hormone that modulates several metabolic processes, including blood glucose regulation and fatty acid catabolism. Adiponectin is exclusively secreted from adipose tissue into the bloodstream and its levels in blood plasma. Higher level on the right indicates more beneficial.

Recommendations

To increase adiponectin levels, just move more during the day. It is also important to maintain a diet with monounsaturated fats such as fish, nuts, avocados and olive oil. Eating low GI carbohydrates with dinner also increases adiponectin production.

Genes

ADIPOQ, FTO

C-reactive protein

MEDIUM

C-reactive protein, also known as CRP, is a protein produced by the liver, whose blood concentration rises radically when there is an indication of inflammatory or infectious processes. Protein level is measured using a common blood test to assess the possibility of infection, inflammation, risk of cardiovascular disease, cancer, rheumatic disease, trauma and other serious conditions. Genetic susceptibility indicates higher or lower levels of C-Reactive Protein.

Genes

CRP, FTO, IDO1, IL-6R

1. Other Factors

Polycystic Ovary Syndrome

MEDIUM-HIGH

Hormonal disorder that causes an increase in the size of the ovaries, with small cysts on the outside of the ovaries.

Recommendations

We know that regular physical activity and weight reduction play an essential role in regulating ovulation and reducing levels of male hormones by helping to improve insulin sensitivity. Thus, often women who are undergoing treatment, when losing weight, can regularize menstruation without the need for medication.

Genes

DENND1A, FSHR, INSR, KISS1, LEPR, LHB, LHCGR, MARK2P9, MTNR1A, MTNR1B, SUOX, THADA, TNF

Fasting Glucose Level Increase

MEDIUM

More positive people, more determined and susceptible to being open to new experiences. Usually they always widen the circle of alternatives and carry creativity and the search for solutions for a more complete life.

Genes

AKT1, FTO, GCG, GLP1R, PROX1, QPCTL

Less Use of Glucose After Intake of Carbohydrates

MEDIUM

Analysis of allelic variants (high-risk CC genotype carriers and low-risk T allele carriers) of the SNP rs340874 showed that carriers of the PROX1 CC genotype had lower glucose utilization after high carbohydrate intake in the meal compared to individuals with other PROX1 genotypes.

Genes

PROX1

1. Other Factors

Quantitative Body Mass Index

MEDIUM-HIGH

The body mass index is an international measure used to calculate whether a person is at ideal weight.

Genes

AGRP, AGT, APOA1, APOA2, APOA5, CLOCK, CTNNBL1, FTO, FUT2, GHRL, HIF1A, HSD11B1, INTERGENIC, IRS2, MC4R, MTIF3, MYO9B, PCSK1, QPCTL, RIC3, TCF7L2, TERF2, TNF, UCP1

Decline of NAD

NORMAL

Nicotinamide adenine dinucleotide (NAD) levels decrease during aging and are involved in age-related metabolic decline. Research has identified that CD38 is the major enzyme involved in the degradation of the precursor to NAD, nicotinamide mononucleotide (NMN) in vivo, indicating that CD38 has a key role in modulating NAD replacement therapy for aging and metabolic diseases.

Genes

CD38, TNF

Noradrenaline

MEDIUM

Noradrenaline, also called Norepinephrine, is one of the monoamines (also known as catecholamines) that most influences mood, anxiety, sleep and diet along with Serotonin, Dopamine and Adrenaline. Its main actions in the cardiovascular system are related to increasing cellular calcium influx and maintaining blood pressure at normal levels. Namely, peripheral vasoconstriction is mediated by alpha adrenergic receptors, whereas tachycardia is mediated by stimulation of b1 adrenergic receptors. Used in medical practice as a powerful reversing agent of arterial hypotension (therefore it is a hypertensive agent) in cases of severe hypotension as a consequence of disseminated infections (sepsis). It has an alpha 2 adrenergic agonist effect which antagonizes the alpha 1 adrenergic receptor, developing vasoconstriction and increased systemic vascular resistance, which leads to a consequent increase in blood pressure.

Genes

CYB561, PNMT

1. Other Factors

Leptin

MEDIUM

Leptin Levels. Leptin is a hormone produced predominantly by fat cells and enterocytes in the small intestine that helps regulate energy balance by inhibiting hunger, which in turn decreases fat storage in adipocytes. Leptin acts on cell receptors in the arcuate and ventromedial nuclei, as well as in other parts of the hypothalamus and dopaminergic neurons in the ventral tegmental area, mediating feeding accordingly. Although the regulation of fat stores is considered the primary function of leptin, it also plays a role in other physiological processes, as evidenced by its many sites of synthesis other than fat cells, and the many cell types other than hypothalamic cells that have leptin receptors. In obesity, there is a decrease in sensitivity to leptin (similar to insulin resistance in type 2 diabetes), resulting in an inability to detect satiety despite high energy stores and high levels of leptin.

Genes

IL-1B, LEP, LEPR

Resistin

MEDIUM-HIGH

Resistin, produced in adipose tissue, is involved in insulin resistance factor. It is more present in obese individuals and therefore links obesity to diabetes. It also causes increased production of LDL in liver cells and degrades receptors, making it less able to lower LDL. High levels of resistin can lead to the inefficiency of statins (a drug used to lower cholesterol).

Genes

RETN

PI3K

NORMAL

Phosphoinositide 3-kinase (PI3K) is a central enzyme in a signaling pathway that mediates cellular responses to insulin and other growth factors. This enzyme phosphorylates position 3 of phosphatidylinositol-4,5-biphosphate to produce phosphatidyl-inositol-3,4,5-trisphosphate (PIP 3) in the plasma membrane.

Genes

PIK3R1

1. Other Factors

AKT

MEDIUM-HIGH

AKT regulates glucose and lipid metabolism. Activated AKT2, which is primarily expressed in insulin-responsive tissues, promotes the translation of glucose transporter 4 (GLUT4).

Genes

AKT1, EGFR

PTEN

UNDEFINED

PTEN is a multifunctional tumor suppressor that is very commonly lost in human cancer. Seen in prostate, glioblastoma, endometrial, lung and breast cancer to varying degrees. It has been observed that up to 70% of patients with prostate cancer have loss of gene expression.

Genes

P70S6K

UNDEFINED

Ribosomal protein S6 kinase beta-1, also known as p70S6 kinase, is an enzyme that in humans is encoded by the RPS6KB1 gene. It is a serine/threonine kinase that acts downstream of PIP3 and phosphoinositide-dependent kinase-1 in the PI3 kinase pathway.

Genes

RPS6KB1

1. Other Factors

GSK-3

NORMAL

GSK-3 is a serine/threonine protein kinase that phosphorylates threonine or serine, and this phosphorylation controls a variety of biological activities, such as glycogen metabolism, cell signaling, cellular transport, and others. Inhibition of GS by GSK-3β leads to decreased glycogen synthesis in the liver and muscles, along with increased blood glucose or hyperglycemia. This is why GSK-3β is associated with the pathogenesis and progression of many diseases, such as diabetes, obesity, cancer, and Alzheimer's disease.

Genes
GSK3B

INSR

MEDIUM

The INSR gene provides instructions for making a protein called the insulin receptor, which is found on many types of cells. Insulin receptors are embedded in the outer membrane surrounding the cell, where they bind to the hormone insulin that circulates in the bloodstream.

Genes
INSR

Wolfram Syndrome 1

NORMAL

Wolfram-1 syndrome is a rare and severe autosomal recessive neurodegenerative disorder characterized by diabetes mellitus, optic atrophy, diabetes insipidus, and deafness (DIDMOAD). Additional clinical features may include renal abnormalities, ataxia, dementia or mental retardation, and various psychiatric illnesses. Minimum diagnostic criteria for Wolfram syndrome are optic atrophy and juvenile-onset diabetes mellitus. Hearing loss in Wolfram syndrome is typically progressive and primarily affects the higher frequencies, but a small fraction of affected individuals have congenital deafness.

Genes
WFS1

1. Other Factors

Obesity in Type 2 Diabetes Patients

MEDIUM-HIGH

Scientific studies associate obesity and increased waist size in patients with Type 2 Diabetes.

Genes

GRB14

2. Reaction in Cells

ENPP1

MEDIUM-HIGH

ENPP1 - Insulin Receptor. It lets insulin pass into the cell. In case of mutation, the receptor "does not open", accumulating extracellular glucose and insulin.

Recommendations

Start the Diabetes Prevention Program (DPP).

Genes

ENPP1

IRS-1

MEDIUM-HIGH

Insulin Receptor Substrate. Receives Insulin inside the cell and phosphorylates it. Mutation in this receptor prevents insulin from being phosphorylated. Thus, the GLUT-4 receptor cannot receive glucose into the cell, causing an accumulation of extracellular glucose.

Genes

IRS1

GLUT4

MEDIUM

GLUT4 receiver receives Glucose. Allows the entry of glucose into the cell. It combines glucose into glycogen or receives electrons and turns into pyruvates that are metabolized by the mitochondria to generate energy. With defective GLUT4 (mutation/polymorphism) Glucose does not enter, accumulating extracellular glucose. GLUT4 is expressed in muscle and adipose tissue that are insulin-dependent tissues, including the heart.

Recommendations

Perform physical activities for at least 30 minutes a day. Walking for more than 30 consecutive minutes a day is a good start. The consumption of Potato Yacon is a good option to eat at night, at least 2 hours before bed, as it helps to reduce blood glucose levels.

Genes

SLC2A4

2. Reaction in Cells

CAPN10

NORMAL

CAPN-10 breaks down fat. Fat accumulation obstructs the ENPP1 and GLUT4 channels. Too much fat in the bloodstream makes the CAPN-10 unable to work properly.

Recommendations

Adjust your diet: Reduce fat intake, just keep healthy fats. Reduce alcohol and carbohydrate consumption. Keep the BMI (Body Mass Index) within the proper standards. Perform Physical Activities: At least 30 consecutive minutes daily of walking and weight loss program. Assess Triglyceride levels and keep within normal range.

Genes

CAPN10

3. Lipid Profile

HDL Cholesterol Level

MEDIUM-HIGH

Tendency to have higher or lower levels of HDL cholesterol. Currently, it is recognized that very high HDL levels, greater than 73mg/dl for men and above 93mg/dl for women, increase cardiovascular risk, as HDL and cardiovascular risk have a U-shaped behavior.

Genes

ABCA1, ABCG8, APOA1, APOA4, BUD13, CETP, EDN1, FADS2, FTO, HNF4A, IL-6, INTERGENIC, LDLR, LIPC, LIPG, LPL, LTA, NUTF2, PCIF1, PLTP, PPARD, SCARB1, TTC39B, VWF, ZPR1

Cholesterol Level (LDL)

MEDIUM-HIGH

Tendency to lower or higher LDL cholesterol levels in general.

Recommendations

Regular aerobic physical activity, such as running and walking, is an auxiliary measure for controlling high cholesterol. The practice of physical exercise leads to a reduction in triglycerides and increases HDL-c, the “good cholesterol”.

Genes

ABCA1, ABCG8, APOB, APOC1, APOC3, APOE, AR, BRCA2, CELSR2, CPS1, CR1L, DNAH11, FABP2, GPX1, HMGCR, HNF1A, LDLR, MAFB, MMAB, MTHFR, MYRF, NAF1, NOS3, PCSK9, SCARB1, SHBG

Triglycerides

MEDIUM-HIGH

Tendency to higher serum triglyceride levels.

Recommendations

Recommended Supplementation: Niacin (Vitamin B3, 15 to 20mg per day in adults, during or after meals), Omega-3, Turmeric, Garlic Extract. Eat Eggplant, Nuts, Beans, Oats, Barley, Apples and citrus fruits. Limit your fructose intake to no more than 50 to 100 grams per day. Decrease sugar consumption, increase fiber consumption, decrease carbohydrates. Eat every 3-5 hours. Perform at least 30 minutes of consecutive exercise each day.

Genes

ABCG8, APOA5, APOB, APOE, BUD13, CILP2, DOCK7, FADS1, FADS2, FTO, GCKR, HMGCR, INTERGENIC, JMJD1C, LDLR, LEPR, LIPC, LPL, LYPLAL1, MLXIPL, OR4A46P, PCIF1, PCSK9, PHYHIP, PPARG, RAB11B, SHBG, SUGP1, TBL2, TMEM241, TRIB1, XKR6, ZPR1

3. Lipid Profile

Dyslipidemia

MEDIUM

Dyslipidemia is an elevation of plasma cholesterol and/or triglycerides or a low concentration of HDL that contributes to the development of atherosclerosis. Causes can be primary (genetic) or secondary.

Genes

APOA5, APOC3, GCKR, LPL, PHYHIP, TBL2

4. Diabetes

Type 1 Diabetes

HIGH

Genetic risk of developing autoimmune type I diabetes.

Genes

CBLB, CLEC16A, CTLA4, ERBB3, HCG17, HLA-DQA1, HLA-DQB1, IFIH1, IGF2, IL-2RA, IL-7R, INS, INTERGENIC, NAA25, PHTF1, PTPN2, PTPN22, SH2B3, TLR2, UBQLN1P

Type 2 diabetes

HIGH

Type 2 diabetes is a chronic disease that affects the way the body metabolizes glucose, the body's main source of energy. A person with type 2 diabetes may be resistant to the effects of insulin - a hormone that regulates the entry of sugar into cells - or not produce enough insulin to maintain a normal glucose level. Result and orange or red indicate increased risk of type 2 diabetes.

Genes

ADCY5, ADIPOQ, ADRA2A, ADRB2, AKT1, CAPN10, CDKAL1, CDKN2A, CDKN2A/B, CDKN2B-AS1, ENPP1, ESR1, FAM58A, FTO, GAD1, GCK, GCKR, GPX1, HHEX, HNF1B, IGF2BP2, INSIG2, IRS1, JAZF1, KCNJ11, KCNQ1, LEPR, MTNR1B, NAF1, NOTCH2, PAX4, PEX5L, PPARG, PTPRD, PTPRS, RPSAP52, SDHAF4, SLC2A14, SLC2A4, SLC30A8, TCF2, TCF7L2, THADA, UBE2E2

Early Type 2 Diabetes

NORMAL

Genetic predisposition to non-autoimmune diabetes, but starting in younger individuals. Result in orange or red indicates a greater tendency to early type 2 diabetes.

Genes

GCK, HNF1A, IL-6, KCNJ11, PAX4

4. Diabetes

Insulin Resistance

MEDIUM-HIGH

Resistance to the hormone insulin, resulting in increased blood sugar.

Recommendations

Make sure you are sleeping well. Reduce stress. Diet to adjust your body to normal levels of BMI (Body Mass Index). Consume more soluble fiber in your diet (vegetables, oats, flaxseed, kale and oranges). Add colorful vegetables to your diet. Add turmeric, ginger and garlic and cinnamon to your diet. Consume green tea and avoid trans fats. Recommended Supplementation: Chromium (Chromium Picolinate 200-1000 mcg), Magnesium, Berberine, Resveratrol

Genes

ADIPOQ, ADRB2, APOA1, APOC3, C5ORF67, ENPP1, GRB14, IL-6, IRS1, PLIN1

Circulating Glycated Hemoglobin (HbA1c)

HIGH

Glycated hemoglobin (HbA1c) is a stable index of chronic glycemic status and hyperglycemia associated with the progressive development of insulin resistance and diabetes. It is also associated with premature aging and increased mortality. To discover new loci for HbA1c that are associated with healthy aging, genome-wide association studies (GWAS) were conducted using non-diabetic participants. Two known loci in GCK rs730497 (or rs2908282) and HK1 rs17476364 have been confirmed.

Recommendations

Perform moderate physical activities. It is recommended that they are not aerobic exercises such as running, as they increase cortisol and lactate in the body, which increases insulin resistance. Instead, do aerobic exercise (exercises that allow you to talk as you go), such as walking 30 to 45 minutes a day / 5 days a week. Take HIIT (High Intensity Interval Training) once or twice a week only, as it increases growth hormone which lowers insulin. Monitor your blood glucose level. Diet for weight reduction, especially in people with BMI (Body Mass Index) above normal levels. Add Vegetables and Nuts to the diet. You can include 2 eggs a day in your diet. Other beneficial foods: Turmeric, Garlic, Cinnamon, Chia, Linseed, Brown Rice, Cabbage, Low Fat Yogurt. Yacon Potatoes are a good option to eat at night, at least 2 hours before bedtime, as it helps to reduce blood glucose levels. Eat regularly every 3-5 hours. Avoid consuming carbohydrates after 18:00hs. Avoid processed foods. Sleep well and avoid stress to reduce cortisol. Recommended Supplementation: Berberine.

Genes

FN3KRP, FNDC5, GCK, HK1, INTERGENIC, MYO9B, SLC30A8

4. Diabetes

Impairment of β Cell Function

HIGH

Impaired pancreatic beta cell function, typically preceded by insulin resistance in muscle and liver cells, is a key factor in type 2 diabetes. In Type 1 Diabetes, beta cell mass decreases by approximately 90% and in Type 2 diabetes it decreases about 50%.

Recommendations

Reduce your consumption of fats and carbohydrates. Perform physical activities.

Genes

ANK1, INTERGENIC, SLC30A8

5. Consequences of Diabetes

Diabetic neuropathy

NORMAL

In the case of diabetes, there is a decrease in oxygen reaching the nerves through small blood vessels, and an inflammatory process also forms, both leading to malfunction of the nerves and causing diabetic neuropathy.

Genes
ADIPOQ

Risk of amputation in case of diabetic foot ulcer

UNDEFINED

Two to ten percent of diabetics have foot ulcers. The risk of developing a diabetic foot ulcer increases over time. Unfortunately, most foot and lower leg amputations are performed on patients with diabetes mellitus. The main priority in the treatment of diabetic foot syndrome is to avoid a major amputation.

Genes
CXCL12

Diabetic retinopathy

UNDEFINED

Diabetic retinopathy (DR) is a disease that affects the small vessels of the retina, the region of the eye responsible for forming the images sent to the brain.

Genes
PON1

5. Consequences of Diabetes

Increased Risk of Alzheimer's in Diabetics (T2)

NORMAL

Studies have indicated that patients with Type 2 Diabetes and the CC allele of the rs2498786 polymorphism of the AKT1 gene are more susceptible to developing Alzheimer's.

Genes
AKT1

Diabetic heart disease ischemic

NORMAL

Individuals with DM2 are at increased risk of CVD, which cannot be fully explained by elevated glucose. Genetic risk factors contribute greatly to the pathogenesis of diabetic macrovascular complications, but their role has not yet been fully illustrated. In a case-control study, rs4845625 in the IL-6R gene and the interaction of rs184003 in the AGER gene and rs4845625 in the IL-6R gene were significantly associated with diabetic ischemic heart disease. Polygenic risk scores calculated by summing the number of SNP risk alleles located in the above two genes were also associated with increased risk of diabetic ischemic heart disease.

Genes
AGER, IL-6R

6. Insulin

Hyperinsulinemia

NORMAL

Hyperinsulinemia (increased insulin resistance) means an excess of the hormone insulin circulating in the human body. Hyperinsulinemia can be caused by obesity, overweight, physical inactivity and high consumption of refined carbohydrates (white flour), which cause an increase in blood glucose and, consequently, an increased production of insulin by pancreatic cells.

Genes
HNF4A, KCNJ11

Higher Insulin Fasting

NORMAL

Higher Insulin Levels on Fast

Genes
ARL15, PCSK1, PCSK9

Hyperinsulinemic Hypoglycemia of Childhood (HHI)

MEDIUM

Childhood hyperinsulinemic hypoglycemia (HHI) is an emergency in the neonatal period. After short periods of fasting, the glucose-hungry brain runs the risk of running out of its main energy substrate.

Genes
ABCC8, GCK, GLUD1, INSR, KCNJ11

Greater Insulin Sensitivity with Physical Exercise

MEDIUM-HIGH

Result in orange or red indicates having greater sensitivity to insulin when playing physical sports.

Genes
LIPC

6. Insulin

Insulinogenic Index

NORMAL

The insulinogenic index (IGI) is a frequently used index of β-cell function. It is an index of insulin secretion.

Genes

ANK1, GCG, GRB14, PROX1

Insulin Sensitivity

MEDIUM

Insulin sensitivity is how responsive your cells are to insulin. Improving this can help reduce insulin resistance and the risk of many diseases, including diabetes. Lack of sleep can damage your health and increase insulin resistance. The result in red indicates less insulin sensitivity. Blue indicates increased insulin sensitivity.

Recommendations

Eating fewer carbohydrates, spreading carbohydrate intake throughout the day, and choosing lower glycemic index carbohydrates are ways to increase insulin sensitivity. Chromium, berberine and magnesium supplements are associated with increased sensitivity.

Genes

C5ORF67, GCG, GRB14

Lower Insulin Secretion

LOW

Type 2 diabetes arises when the compensatory insulin secretion induced by insulin resistance is depleted. Insulin resistance and/or β-cell dysfunction results from the interaction of environmental factors (hypercaloric diet and reduced physical activity) with a predisposing polygenic background. During the pathogenesis of DM2, insulin resistance of peripheral tissues (liver, skeletal muscle and adipose tissue) causes compensatory increases in insulin secretion by pancreatic β cells. When insulin resistance is no longer compensated and the β-cells are depleted, hyperglycemia arises.

Genes

EXT2, GLP1R, INTERGENIC, SLC30A8, TCF7L2

6. Insulin

Improved Insulin Resistance in Diets with More Protein

NORMAL

Research indicates that individuals with the T allele of the rs12785878 polymorphism benefit from weight-loss diets with higher amounts of protein to improve insulin resistance.

Genes

NADSYN1

7. Pharmacogenetics

Response to Metformin

MEDIUM-HIGH

The therapeutic response to metformin is determined by the action of protein products from several genes and, due to this, pharmacogenetics has brought a lot of relevant information. result in orange or red indicates better response.

Genes

SLC22A1, SLC2A2, SLC47A1, SRR

Weight Reduction in Liraglutide Treatment

NORMAL

The SNP rs6923761 (non-coding), allele A (GA / AA vs GG), was associated with a greater weight reduction of 2.9 kg after treatment with liraglutide in the multivariate analysis

Genes

GLP1R

GLP-1

NORMAL

Glucagon-like peptide 1 (GLP-1 or GLP1R) helps regulate appetite, especially after eating. It also helps to increase insulin production. GLP-1 is produced in the intestine. Small intestinal cells are the main source of GLP-1. Orange or red result indicates less responsiveness to GLP-1.

Genes

GLP1R, INTERGENIC

7. Pharmacogenetics

DPP-4

NORMAL

Dipeptidyl peptidase-4 (DPP4) can influence lipid homeostasis and the progression of atherosclerosis. Researches have evaluated the association of DPP4 gene polymorphisms with hypoalphalipoproteinemia and serum levels of DPP4. DPP-4 is an enzyme expressed on the surface of most cell types that inactivates a variety of other bioactive peptides, including insulinotropic gastrointestinal polypeptide (GIP) and GLP-1. Therefore, its inhibition could potentially affect glucose regulation through multiple effects. However, DPP-4 inhibitors have a modest effect on GLP-1 levels compared to GLP-1 agonists. Dipeptidyl peptidase (DPP-4) inhibitors are not considered initial therapy for most patients with type 2 diabetes mellitus. Initial therapy in most patients starts with diet, weight reduction, exercise and metformin in the absence of contraindications. DPP-4 inhibitors are often considered as monotherapy in patients who are intolerant of or contraindicated to metformin, sulphonylureas, or thiazolidinediones, such as patients with chronic kidney disease or who are at particularly high risk of hypoglycaemia. Blue result indicates lower levels of DPP4, which is a positive feature, as it is related to protection against: Insulin Resistance, Hypoalphalipoproteinemia and Hyperinsulinemia.

Genes

DPP4

AKT

Gene	SNP	Genotype	Rare Allele	Result
AKT1	rs1130214	GT-	C	
AKT1	rs2498786	CG-	G	
AKT1	rs2494752	GG+	G	
AKT1	rs3803304	GG-	G	
EGFR	rs10228436	AA+	A	

Fasting Glucose Level Increase

Gene	SNP	Genotype	Rare Allele	Result
AKT1	rs1130214	GT-	C	
FTO	rs17817449	TT+	A,G	
GCG	rs4664447	AA-	C	
GLP1R	rs10305492	GG+	A	
PROX1	rs340874	AG-	C	
QPCTL	rs2287019	CC+	T	

CAPN10

Gene	SNP	Genotype	Rare Allele	Result
CAPN10	rs3792267	GG+	A	
CAPN10	rs5030952	CC+	T	
CAPN10	rs2975766	Variant not found	A	

HDL Cholesterol Level

Gene	SNP	Genotype	Rare Allele	Result
ABCA1	rs2575875	Variant not found	A	
ABCA1	rs3890189	Variant not found	A	
ABCA1	rs4149268	AG-	A,C	
ABCA1	rs4149274	Variant not found	A	
ABCG8	rs6756629	GG+	T	
APOA1	rs1799837	Variant not found	T	
APOA4	rs675	TT+	C	
BUD13	rs28927680	GG-	G	
CETP	rs183130	TT+	T	
CETP	rs1864163	GG+	A	
CETP	rs4329913	GG-	T	
CETP	rs4783961	AA+	A	
CETP	rs5882	AG+	A	
CETP	rs708272	CT-	A	
EDN1	rs5370	GT+	T	
FADS2	rs174570	CC+	T	
FTO	rs1558902	TT+	A	
HNF4A	rs1800961	CC+	T	
IL-6	rs1800795	CG+	G	
INTERGENIC	rs10468017	CC+	T	
INTERGENIC	rs12678919	AA+	G	
INTERGENIC	rs2156552	Variant not found	G,T	
INTERGENIC	rs3764261	TT-	A	
LDLR	rs6511720	GG+	T	
LIPC	rs1800588	CC+	T	
LIPC	rs261332	GG+	G	
LIPG	rs4939883	CT+	C	
LPL	rs285	CT+	T	
LPL	rs320	GT+	G	
LPL	rs328	Variant not found	G	
LTA	rs1799724	CT+	T	
NUTF2	rs2271293	AG+	A	
PCIF1	rs7679	TT+	C	
PLTP	rs3843763	Variant not found	T	
PPARD	rs2016520	AA-	T	
PPARD	rs3734254	TT+	T	
SCARB1	rs5888	CT-	C	
TTC39B	rs471364	AA-	C	
VWF	rs2238104	Variant not found	T	
ZPR1	rs964184	CC+	C	

Cholesterol Level (LDL)

Gene	SNP	Genotype	Rare Allele	Result

Gene	SNP	Genotype	Rare Allele	Result
ABCA1	rs1883025	AG-	T	🟢
ABCG8	rs4299376	TT+	G	🟢
ABCG8	rs6544713	CC+	C	🟢
ABCG8	rs6756629	GG+	T	🟢
APOB	rs515135	GG-	C	🟠
APOB	rs693	CT-	A	🟢
APOC1	rs4420638	AA+	G	🟢
APOC3	rs5128	CG-	G	🟠
APOE	rs7412	TT+	T	🔴
AR	rs5031002	GG+	A	🟢
BRCA2	rs4942486	CT+	C	🟢
CELSR2	rs12740374	GG+	T	🟢
CELSR2	rs646776	AA-	T	🟢
CELSR2	rs629301	AA-	G	🟢
CPS1	rs1047891	CC+	A	🟢
CR1L	rs4844614	GT+	T	🟡
DNAH11	rs12670798	TT+	C	🟢
FABP2	rs1799883	GG-	A,C,G	🟢
GPX1	rs1050450	CC-	A	🟢
HMGCR	rs12654264	AT+	T	🟢
HNF1A	rs2650000	GT-	A	🟡
LDLR	rs6511720	GG+	T	🟢
LDLR	rs688	CC+	T	🟢
MAFB	rs6102059	CC+	T	🟢
MMAB	rs2241201	CC+	G	🟢
MTHFR	rs2066470	Variant not found	A,C	⚪
MYRF	rs174537	GG+	T	🟠
NAF1	rs7675998	GG+	G,T	🟢
NOS3	rs1799983	GG+	T	🟢
PCSK9	rs11206510	Variant not found	C	⚪
SCARB1	rs4238001	Variant not found	T	⚪
SHBG	rs6259	Variant not found	A	⚪
SHBG	rs727428	AG-	T	🟢

Impairment of β Cell Function

Gene	SNP	Genotype	Rare Allele	Result
ANK1	rs516946	GG-	C	🟠
INTERGENIC	rs7202877	TT+	T	🟠
SLC30A8	rs13266634	CC+	A,T	🔴

DPP-4

Gene	SNP	Genotype	Rare Allele	Result
DPP4	rs17574	CT-	G	🟢

Decline of NAD

Gene	SNP	Genotype	Rare Allele	Result
CD38	rs6449182	Variant not found	G	⚪
TNF	rs1800629	GG+	A	🟢

Type 1 Diabetes

Gene	SNP	Genotype	Rare Allele	Result
CBLB	rs3772534	Variant not found	T	⚪
CLEC16A	rs725613	Variant not found	G	⚪
CTLA4	rs11571316	CT-	A,C	🟢
CTLA4	rs231775	AG+	G	🟡
CTLA4	rs3087243	AG+	G	🟡
ERBB3	rs2292239	CC-	G	🟢
HCG17	rs3130380	GG+	A	🟢
HLA-DQA1	rs9272346	AA+	A,C,T	🔴
HLA-DQB1	rs7454108	CC+	C	🟠
IFIH1	rs1990760	CC+	T	🟢
IGF2	rs3741208	CC-	G,T	🟢
IL-2RA	rs2104286	AG-	C	🟢
IL-7R	rs3194051	AA+	G	🟢
INS	rs1057524907	Variant not found	G	⚪
INS	rs121908260	Variant not found	A	⚪
INS	rs121908278	Variant not found	G	⚪
INS	rs121918101	Variant not found	G	⚪

Gene	SNP	Genotype	Rare Allele	Result
INS	rs121918102	Variant not found	T	⚪
INS	rs28933985	Variant not found	A	⚪
INS	rs397515519	Variant not found	G	⚪
INS	rs397515520	Variant not found	C	⚪
INS	rs397515521	Variant not found	A	⚪
INS	rs689	AT-	A	🟢
INS	rs80356663	CC-	A	🟢
INS	rs80356664	CC+	G,T	🟢
INS	rs80356666	Variant not found	G	⚪
INS	rs80356668	Variant not found	C	⚪
INS	rs80356669	GG+	A	🟢
INS	rs80356670	Variant not found	T	⚪
INS	rs80356671	Variant not found	A	⚪
INS	rs80356672	Variant not found	G	⚪
INS	rs886041083	Variant not found	A	⚪
INTERGENIC	rs2544677	Variant not found	A,C,T	⚪
INTERGENIC	rs7202877	TT+	T	🟢
NAA25	rs17696736	AA+	G	🟢
PHTF1	rs6679677	CC+	A	🟢
PTPN2	rs1893217	CC-	G	🟠
PTPN2	rs2542151	GG+	T	🟠
PTPN2	rs478582	Variant not found	C	⚪
PTPN22	rs2476601	GG+	G	🟢
SH2B3	rs3184504	CC+	A,C,G	🟢
TLR2	rs3804100	Variant not found	C	⚪
UBQLN1P	rs3130352	CC+	T	🟢

Type 2 diabetes

Gene	SNP	Genotype	Rare Allele	Result
ADCY5	rs11708067	AA+	G	🟢
ADIPOQ	rs17366743	TT+	C	🟢
ADIPOQ	rs1501299	CC-	A	🟢
ADRA2A	rs553668	Variant not found	G,T	⚪
ADRB2	rs1042714	GT+	C,T	🟢
AKT1	rs1130214	GT-	C	🟢
CAPN10	rs3792267	GG+	A	🟢
CDKAL1	rs4712523	AG+	G	🟢
CDKAL1	rs7756992	AG+	G,T	🟠
CDKAL1	rs7754840	CG+	C	🟡
CDKAL1	rs4712524	AG+	G	🟢
CDKN2A	rs10811661	TT+	T	🟠
CDKN2A	rs7020996	CC+	C	🟢
CDKN2A/B	rs2383208	AA+	G,T	🟢
CDKN2B-AS1	rs2383206	Variant not found	G	⚪
ENPP1	rs997509	Variant not found	T	⚪
ENPP1	rs1044498	AC+	C	🟠
ESR1	rs11964281	Variant not found	T	⚪
FAM58A	rs1057521251	Variant not found	A	⚪
FTO	rs10163409	Variant not found	T	⚪
FTO	rs1121980	CC-	A	🟢
FTO	rs11642841	CC+	A	🟢
FTO	rs8050136	CC+	A	🟢
FTO	rs9939609	TT+	A	🟢
FTO	rs9930506	AA+	G	🟢
GAD1	rs2241165	AA-	T	🟢
GAD1	rs3762555	Variant not found	A,G	⚪
GAD1	rs3791850	Variant not found	A,C	⚪
GCK	rs4607517	GG+	A,C	🟢
GCKR	rs780094	AG-	C	🟢
GPX1	rs1050450	CC-	A	🟢
HHEX	rs1111875	Variant not found	T	⚪
HHEX	rs5015480	TT+	T	🟢
HNF1B	rs757210	AG-	G,T	🟢
IGF2BP2	rs4402960	GG+	T	🟢
INSIG2	rs7566605	GG+	C	🟢
IRS1	rs2943641	CT+	C	🟡
JAZF1	rs1635852	CT+	C	🟢
KCNJ11	rs5215	TT+	T	🟢

Gene	SNP	Genotype	Rare Allele	Result
KCNJ11	rs5219	CC+	T	🟢
KCNQ1	rs104894252	GG+	A,C	🟢
KCNQ1	rs2283228	AA+	C	🟢
KCNQ1	rs2237892	CC+	T	🟠
LEPR	rs1137101	AA+	G	🟢
MTNR1B	rs10830963	CC+	G	🟢
NAF1	rs7675998	GG+	G,T	🟢
NOTCH2	rs10923931	Variant not found	T	⚪
NOTCH2	rs2793831	Variant not found	C	⚪
PAX4	rs2233580	GG-	T	🟢
PEX5L	rs7630877	GG+	A,C	🟢
PPARG	rs13306747	Variant not found	A,G,T	⚪
PPARG	rs1801282	CG+	C	🟢
PPARG	rs2197423	Variant not found	A	⚪
PPARG	rs3856806	CC+	T	🟢
PPARG	rs6802898	Variant not found	T	⚪
PTPRD	rs10116682	Variant not found	A	⚪
PTPRD	rs10481625	Variant not found	A,C,G	⚪
PTPRS	rs1143699	Variant not found	A	⚪
RPSAP52	rs1531343	CC+	C,T	🟢
SDHAF4	rs1048886	AA+	G	🟢
SLC2A14	rs12815313	Variant not found	G,T	⚪
SLC2A4	rs121434581	GG+	A,C	🟢
SLC30A8	rs13266634	CC+	A,T	🔴
TCF2	rs4430796	AG+	G	🟡
TCF7L2	rs12255372	GG+	T	🟢
TCF7L2	rs7901695	TT+	C	🟢
TCF7L2	rs7903146	CC+	G,T	🟢
THADA	rs7578597	TT+	C	🟢
UBE2E2	rs7612463	AC+	A,G	🟢

Early Type 2 Diabetes

Gene	SNP	Genotype	Rare Allele	Result
GCK	rs104894005	GG-	A,G,T	🟢
GCK	rs104894008	Variant not found	G,T	⚪
GCK	rs104894009	Variant not found	G	⚪
GCK	rs104894011	Variant not found	A,T	⚪
GCK	rs104894016	Variant not found	G,T	⚪
HNF1A	rs2464196	Variant not found	A	⚪
IL-6	rs1800795	CG+	G	🟡
KCNJ11	rs1800467	Variant not found	C,T	⚪
PAX4	rs2233578	Variant not found	A,T	⚪
PAX4	rs2233580	GG-	T	🟢

Dyslipidemia

Gene	SNP	Genotype	Rare Allele	Result
APOA5	rs3135506	GG+	C	🟢
APOC3	rs5128	CG-	G	🟡
GCKR	rs780094	AG-	C	🟡
LPL	rs328	Variant not found	G	⚪
LPL	rs320	GT+	G	🟠
PHYHIP	rs12541335	AG+	G	🟢
TBL2	rs17145738	CC+	T	🟢

Diabetic heart disease ischemic

Gene	SNP	Genotype	Rare Allele	Result
AGER	rs184003	GG-	A	🟢
IL-6R	rs4845625	TT+	T	🟢

ENPP1

Gene	SNP	Genotype	Rare Allele	Result
ENPP1	rs997509	Variant not found	T	⚪
ENPP1	rs1044498	AC+	C	🟠

GLP-1

Gene	SNP	Genotype	Rare Allele	Result
GLP1R	rs6923761	GG+	A	🟢
INTERGENIC	rs7202877	TT+	T	🟢

GLUT4

Gene	SNP	Genotype	Rare Allele	Result
SLC2A4	rs5435	Variant not found	T	⚪
SLC2A4	rs5417	AC+	A	🟡
SLC2A4	rs5415	CT+	T	🟢
SLC2A4	rs121434581	GG+	A,C	🟢

GSK-3

Gene	SNP	Genotype	Rare Allele	Result
GSK3B	rs334558	AA+	A	🟢

Glycation

Gene	SNP	Genotype	Rare Allele	Result
AGER	rs1800624	TT-	T	🟢
AGER	rs1800625	CT-	G	🔴
AGER	rs184003	GG-	A	🟢
AGER	rs2070600	GG-	T	🟢
AGER	rs3134940	Variant not found	C	⚪
GLO1	rs4746	AA-	A,G	🟢

Circulating Glycated Hemoglobin (HbA1c)

Gene	SNP	Genotype	Rare Allele	Result
FN3KRP	rs1046896	CC+	T	🟢
FNDC5	rs3480	Variant not found	G	⚪
GCK	rs730497	Variant not found	A	⚪
GCK	rs1799884	GG-		🟢
HK1	rs17476364	Variant not found	C	⚪
INTERGENIC	rs1467311	Variant not found	G	⚪
MYO9B	rs11667918	TT+	C	🔵
SLC30A8	rs13266634	CC+	A,T	🔴

Hyperinsulinemia

Gene	SNP	Genotype	Rare Allele	Result
HNF4A	rs193922479	CC+	T	🟢
HNF4A	rs587777732	CC+	T	🟢
KCNJ11	rs1800467	Variant not found	C,T	⚪
KCNJ11	rs1057518775	Variant not found	G	⚪

Hypertension (High Blood Pressure)

Gene	SNP	Genotype	Rare Allele	Result
ACE	rs4343	AG+	A	🟡
ADD1	rs4961	GT+	A,T	🟠
ADD1	rs4963	CG+	G,T	🟢
AGT	rs121912702	Variant not found	A	⚪
AGT	rs699	CT-	G	🟠
AGT	rs5051	CT+	T	🟡
AGTR1	rs5186	AA+	C	🟢
APOE4	rs429358	TT+	C	🟢
ATP2B1	rs7965584	AG+	G	🟢
BCAT1	rs7961152	Variant not found	C	⚪
CALCA	rs3781719	Variant not found	G	⚪
CLCN6	rs13306560	Variant not found	T	⚪
CLCN6	rs17376328	Variant not found	A	⚪
CNNM2	rs11191548	TT+		🟠
CYP11B2	rs1799998	TT-	G	🟢
CYP17A1	rs1004467	TT-		🟠
CYP4A11	rs1126742	Variant not found	G	⚪
EDN1	rs5370	GT+	T	🟠
EDNRA	rs5335	Variant not found	G	⚪
GRK4	rs1024323	GG-	T	🟢
GRK4	rs2960306	GG+	T	🟢
GUCY1A3	rs587777320	Variant not found	A,T	⚪
GUCY1A3	rs587777321	Variant not found	T	⚪
GUCY1A3	rs587777322	Variant not found		⚪
HIVEP2	rs878853251	Variant not found		⚪
IL-6	rs1800795	CG+	G	🟠
NEDD4L	rs2288774	CT+	A,C	🟢
NEDD4L	rs3865418	CC+	C	🟢

Gene	SNP	Genotype	Rare Allele	Result
NEDD4L	rs4149601	AA+	A	🟢
NOS3	rs1799983	GG+	T	🟢
NOS3	rs1800779	AA+	G	🟢
NOS3	rs1800783	Variant not found	C,G,T	⚪
NOS3	rs3918188	Variant not found	A,T	⚪
PPARG	rs4684847	Variant not found	T	⚪
STK39	rs3754777	Variant not found	T	⚪
STK39	rs6749447	GT+	G	🟢
TRPM6	rs11144134	CT+	C	🟠
UMOD	rs13333226	AA+	A	🟡

Hyperinsulinemic Hypoglycemia of Childhood (HHI)

Gene	SNP	Genotype	Rare Allele	Result
ABCC8	rs1057516281	Variant not found	T	⚪
ABCC8	rs1057516317	Variant not found		⚪
ABCC8	rs1057516404	Variant not found	A	⚪
ABCC8	rs1057516439	Variant not found	G	⚪
ABCC8	rs1057516509	Variant not found	C	⚪
ABCC8	rs1057516542	Variant not found		⚪
ABCC8	rs1057516585	Variant not found	A	⚪
ABCC8	rs1057516589	Variant not found	C	⚪
ABCC8	rs1057516591	Variant not found		⚪
ABCC8	rs1057516654	Variant not found	G	⚪
ABCC8	rs1057516655	Variant not found		⚪
ABCC8	rs1057516665	Variant not found	A	⚪
ABCC8	rs1057516718	Variant not found	T	⚪
ABCC8	rs1057516860	Variant not found		⚪
ABCC8	rs1057516890	Variant not found	T	⚪
ABCC8	rs1057516946	Variant not found	C	⚪
ABCC8	rs1057517015	Variant not found	G	⚪
ABCC8	rs1057517019	Variant not found	C	⚪
ABCC8	rs1057517050	Variant not found		⚪
ABCC8	rs1057517128	Variant not found	C	⚪
ABCC8	rs1057517139	Variant not found	A	⚪
ABCC8	rs1057517199	Variant not found	A	⚪
ABCC8	rs1057517274	Variant not found	A	⚪
ABCC8	rs1057517406	Variant not found	T	⚪
ABCC8	rs1057517420	Variant not found	C	⚪
ABCC8	rs137852671	GG-	A	🟢
ABCC8	rs137852672	TT-	A	🟢
ABCC8	rs137852673	CC-	A	🟢
ABCC8	rs137852674	Variant not found	G	⚪
ABCC8	rs137852675	Variant not found	A	⚪
ABCC8	rs137852676	GG-	A	🟢
ABCC8	rs139964066	Variant not found	A	⚪
ABCC8	rs141322087	CC+	T	🟢
ABCC8	rs148529020	CC+	T	🟢
ABCC8	rs151344623	GG-	A	🟢
ABCC8	rs151344624	---		🟢
ABCC8	rs1799857	CC-	A	🟢
ABCC8	rs193922396	Variant not found	C	⚪
ABCC8	rs193922397	AA-	G	🟢
ABCC8	rs193922399	TT-	G	🟢
ABCC8	rs193922400	GG-	A	🟢
ABCC8	rs193922401	GG-	T	🟢
ABCC8	rs193922402	CC-	T	🟢
ABCC8	rs193922403	CC-	G	🟢
ABCC8	rs193922405	GG-	A	🟢
ABCC8	rs193922406	TT-	G	🟢
ABCC8	rs193922407	GG-	A	🟢
ABCC8	rs193922408	GG-	A	🟢
GCK	rs104894005	GG-	A,G,T	🟢
GCK	rs104894006	Variant not found	A	⚪
GCK	rs104894008	Variant not found	G,T	⚪
GCK	rs104894009	Variant not found	G	⚪
GCK	rs104894010	Variant not found	C	⚪
GCK	rs104894011	Variant not found	A,T	⚪
GCK	rs104894012	Variant not found	A	⚪

Gene	SNP	Genotype	Rare Allele	Result
GCK	rs104894014	Variant not found	T	○
GCK	rs104894015	Variant not found	G	○
GCK	rs104894016	Variant not found	G,T	○
GCK	rs1057520109	Variant not found	A	○
GCK	rs1057521092	Variant not found	A	○
GCK	rs1057521093	Variant not found	G	○
GCK	rs1057521094	Variant not found	A	○
GCK	rs1057524900	Variant not found	A	○
GCK	rs1057524901	Variant not found		○
GCK	rs1057524902	Variant not found	A	○
GCK	rs1057524903	Variant not found	G	○
GCK	rs1057524904	Variant not found	T	○
GCK	rs1057524905	Variant not found	A	○
GCK	rs1057524906	Variant not found	C	○
GCK	rs1064793134	Variant not found	A	○
GCK	rs1064793998	Variant not found	A	○
GCK	rs1064794268	Variant not found	C	○
GCK	rs1064795242	Variant not found		○
GCK	rs1064796410	Variant not found		○
GCK	rs1085307455	Variant not found	T	○
GCK	rs144723656	GG+	A	●
GCK	rs148311934	CC+	T	●
GCK	rs1799884	GG-		●
GCK	rs193921338	CC-	A	●
GCK	rs193921340	TT-	A	●
GCK	rs193921400	Variant not found	C	○
GCK	rs193922252	Variant not found	A	○
GCK	rs193922253	---	A	●
GCK	rs193922254	---		●
GCK	rs193922255	AA-	G	●
GCK	rs193922258	Variant not found	C	○
GCK	rs193922259	Variant not found	T	○
GCK	rs193922260	AA-	T	●
GCK	rs193922261	Variant not found	C	○
GCK	rs193922262	GG-	T	●
GCK	rs193922263	CC-	T	●
GCK	rs193922264	Variant not found	A	○
GCK	rs193922265	CC-	A	●
GCK	rs193922266	TT-	G	●
GCK	rs193922267	GG-	A	●
GCK	rs193922268	TT-	C	●
GCK	rs193922269	GG-	T	●
GCK	rs193922271	CC-	A	●
GLUD1	rs121909730	Variant not found	T	○
GLUD1	rs121909731	CC-	G	●
GLUD1	rs121909732	Variant not found	C	○
GLUD1	rs121909733	Variant not found	A	○
GLUD1	rs121909734	GG-	A	●
GLUD1	rs121909735	Variant not found	C	○
GLUD1	rs121909736	Variant not found	A	○
GLUD1	rs121909737	Variant not found	A	○
GLUD1	rs56275071	Variant not found	T	○
GLUD1	rs797045597	GG-	A	●
INSR	rs1035942	CC-		●
INSR	rs10426094	CC+		●
INSR	rs10500204	Variant not found		○
INSR	rs1051690	Variant not found	C	○
INSR	rs121913135	Variant not found	T	○
INSR	rs121913136	Variant not found	G	○
INSR	rs121913137	Variant not found	G	○
INSR	rs121913138	Variant not found	T	○
INSR	rs121913139	Variant not found	A	○
INSR	rs121913140	Variant not found	C	○
INSR	rs121913141	Variant not found	C	○
INSR	rs121913142	Variant not found	G	○
INSR	rs121913143	Variant not found	A	○
INSR	rs121913144	Variant not found	T	○
INSR	rs121913145	AA-	G	●

Gene	SNP	Genotype	Rare Allele	Result
INSR	rs121913146	Variant not found	A	○
INSR	rs121913147	Variant not found	G	○
INSR	rs121913148	GG-	A	●
INSR	rs121913149	Variant not found		○
INSR	rs121913150	Variant not found	A	○
INSR	rs121913151	Variant not found	T	○
INSR	rs121913152	Variant not found	C	○
INSR	rs121913153	Variant not found	C	○
INSR	rs121913154	Variant not found	A	○
INSR	rs121913155	Variant not found	T	○
INSR	rs121913156	GG-	A	●
INSR	rs121913157	Variant not found	A	○
INSR	rs121913158	Variant not found	C	○
INSR	rs121913159	Variant not found	G	○
INSR	rs121913160	Variant not found	G	○
INSR	rs12610022	Variant not found		○
INSR	rs1366600	Variant not found		○
INSR	rs1799816	GG-	A	●
INSR	rs1799817	CT-	A	●
INSR	rs1864010	Variant not found	G,T	○
INSR	rs2059806	Variant not found	A	○
INSR	rs2059807	CC-		●
INSR	rs2115386	Variant not found		○
INSR	rs2229431	CC-		●
INSR	rs2252673	Variant not found		○
INSR	rs267607184	Variant not found	A	○
INSR	rs2860174	Variant not found		○
INSR	rs28933083	Variant not found		○
INSR	rs28933084	Variant not found		○
INSR	rs28933085	Variant not found		○
INSR	rs28933086	Variant not found		○
INSR	rs3745546	Variant not found		○
INSR	rs387906537	Variant not found	G	○
INSR	rs387906538	Variant not found	G	○
INSR	rs387906539	Variant not found	C	○
KCNJ11	rs104894236	Variant not found	A,T	○
KCNJ11	rs104894237	Variant not found	T	○
KCNJ11	rs104894248	AA-	G	●
KCNJ11	rs1057518775	Variant not found	G	○
KCNJ11	rs1211367901	Variant not found		○
KCNJ11	rs1800467	Variant not found	C,T	○
KCNJ11	rs193922565	TT-	C	●
KCNJ11	rs193929333	Variant not found	C	○
KCNJ11	rs193929336	Variant not found	C	○
KCNJ11	rs193929337	Variant not found	G	○
KCNJ11	rs193929338	Variant not found	C	○
KCNJ11	rs193929339	Variant not found	A	○
KCNJ11	rs193929343	Variant not found	T	○
KCNJ11	rs193929348	Variant not found	G	○
KCNJ11	rs193929349	Variant not found	A	○
KCNJ11	rs193929352	Variant not found	C	○
KCNJ11	rs193929353	Variant not found	C	○
KCNJ11	rs193929355	GG-	A	●
KCNJ11	rs193929356	AA-	G	●
KCNJ11	rs193929357	Variant not found	A	○
KCNJ11	rs193929358	Variant not found	A	○
KCNJ11	rs267607196	GG-	A	●
KCNJ11	rs28936678	TT-	C	●
KCNJ11	rs387906398	Variant not found	T	○
KCNJ11	rs387906783	Variant not found	A	○
KCNJ11	rs41282930	GG+	A	●
KCNJ11	rs5210	Variant not found	A	○
KCNJ11	rs5215	TT+	T	●
KCNJ11	rs5219	CC+	T	●
KCNJ11	rs587783669	CC-	G	●
KCNJ11	rs587783670	Variant not found	G	○
KCNJ11	rs587783671	AA-	C	●
KCNJ11	rs587783672	GG-	A	●

Gene	SNP	Genotype	Rare Allele	Result
KCNJ11	rs587783673	Variant not found	A	○
KCNJ11	rs587783674	CC-	G	●
KCNJ11	rs587783675	TT-	C	●
KCNJ11	rs74339576	GG-	A	●
KCNJ11	rs752507753	GG+	A	●
KCNJ11	rs780957825	GG+	A	●
KCNJ11	rs797045637	Variant not found	C	○
KCNJ11	rs80356610	Variant not found	C	○
KCNJ11	rs80356611	GG-	A	●
KCNJ11	rs80356613	Variant not found	A	○
KCNJ11	rs80356615	Variant not found	A	○
KCNJ11	rs80356616	GG-	A	●
KCNJ11	rs80356617	Variant not found	G	○
KCNJ11	rs80356618	Variant not found	A	○
KCNJ11	rs80356620	Variant not found	C	○
KCNJ11	rs80356621	Variant not found	G	○
KCNJ11	rs80356622	Variant not found	C	○

INSR

Gene	SNP	Genotype	Rare Allele	Result
INSR	rs1799817	CT-	A	●

IRS-1

Gene	SNP	Genotype	Rare Allele	Result
IRS1	rs1801123	AG-	C	●
IRS1	rs1801278	Variant not found	G,T	○
IRS1	rs2943641	CT+	C	●

Leptin

Gene	SNP	Genotype	Rare Allele	Result
IL-1B	rs1143627	CT-	A	●
LEP	rs7799039	Variant not found	A	○
LEP	rs2167270	AG+	A	●
LEPR	rs1137101	AA+	G	●
LEPR	rs1137100	Variant not found	G	○
LEPR	rs1805096	CT-	A	●

Higher Insulin Fasting

Gene	SNP	Genotype	Rare Allele	Result
ARL15	rs157069	Variant not found	A	○
PCSK1	rs6235	Variant not found	G	○
PCSK9	rs11591147	GG+	A,T	●
PCSK9	rs562556	AA+	A	●

Increased Risk of Alzheimer's in Diabetics (T2)

Gene	SNP	Genotype	Rare Allele	Result
AKT1	rs2498786	CG-	G	●

Greater Insulin Sensitivity with Physical Exercise

Gene	SNP	Genotype	Rare Allele	Result
LIPC	rs1800588	CC+	T	●

Waist Measure

Gene	SNP	Genotype	Rare Allele	Result
ADIPOQ	rs266729	CC+	A,G,T	●
APOA1	rs670	AG-	T	●
APOE	rs7412	TT+	T	●
C5ORF67	rs6867983	CC+	T	●
CCDC40	rs2361701	Variant not found	A	○
CDH12	rs4701252	Variant not found	C	○
CLOCK	rs1801260	AA+	C,G,T	●
ELP4	rs986527	Variant not found	A,T	○
ESR1	rs851982	TT+	C	●
FTO	rs1558902	TT+	A	●
FTO	rs17817449	TT+	A,G	●
FTO	rs9939609	TT+	A	●
GCH1	rs7142517	Variant not found	A	○
GCKR	rs1260326	CT+	C	●

Gene	SNP	Genotype	Rare Allele	Result
GDAP1	rs44711028	Variant not found		
HMGCR	rs17238484	GT+	T	
IL-15	rs10833	Variant not found	A,C	
IL-1A	rs1800587	CT-	A,C	
IL-1B	rs1143634	CT-	A	
INTERGENIC	rs10487506	Variant not found	A	
INTERGENIC	rs1547251	Variant not found	T	
INTERGENIC	rs1555967	Variant not found	A	
INTERGENIC	rs1875517	Variant not found	A	
INTERGENIC	rs2083637	CT-	G	
INTERGENIC	rs2286983	CC-	A	
INTERGENIC	rs284495	Variant not found	C	
INTERGENIC	rs3922812	Variant not found	A	
INTERGENIC	rs4312989	Variant not found	T	
INTERGENIC	rs489693	AC+	A,T	
INTERGENIC	rs535043	CT-	A	
INTERGENIC	rs539901	TT+	G	
KLF7	rs7568369	Variant not found	T	
MC4R	rs12970134	AG+	A	
MC4R	rs2229616	GG-	C	
MYO1B	rs1823913	Variant not found	C,G	
OVCH2	rs7932813	AA+	G	
PCSK1	rs6232	AG-	C	
PCSK1	rs6234	Variant not found	C	
PCSK1	rs6235	Variant not found	G	
PER2	rs2304672	Variant not found	C	
PER2	rs4663302	Variant not found	T	
PLIN1	rs894160	GG-	T	
PPM1L	rs9290065	CT+	T	
SH2B1	rs7498665	AG+	G,T	
SLC6A2	rs36017	CG-	A,C	
SSTR2	rs1466113	Variant not found	G,T	
TXN	rs2301241	CT-	C	
UCP2	rs659366	CT+	T	
UCP2	rs660339	CT-	T	
UCP3	rs1800849	CT-	A,T	

Improved Insulin Resistance in Diets with More Protein

Gene	SNP	Genotype	Rare Allele	Result
NADSYN1	rs12785878	GG+	G	

Lower Insulin Secretion

Gene	SNP	Genotype	Rare Allele	Result
EXT2	rs11037909	Variant not found	T	
GLP1R	rs10305492	GG+	A	
INTERGENIC	rs7480010	Variant not found	G	
INTERGENIC	rs7923837	AA+	A,T	
SLC30A8	rs13266634	CC+	A,T	
TCF7L2	rs7903146	CC+	G,T	

Less Use of Glucose After Intake of Carbohydrates

Gene	SNP	Genotype	Rare Allele	Result
PROX1	rs340874	AG-	C	

Diabetic neuropathy

Gene	SNP	Genotype	Rare Allele	Result
ADIPOQ	rs3821799	CT+	C	
ADIPOQ	rs3774261	AG+	G	

Noradrenaline

Gene	SNP	Genotype	Rare Allele	Result
CYB561	rs2058203	Variant not found	G	
PNMT	rs876493	AG+	A	

Adiponectin Levels

Gene	SNP	Genotype	Rare Allele	Result
ADIPOQ	rs17300539	GG+	A	
ADIPOQ	rs17366568	AG+	A	

Gene	SNP	Genotype	Rare Allele	Result
ADIPOQ	rs822387	Variant not found	C	⚪
ADIPOQ	rs1501299	CC-	A	🔴
ADIPOQ	rs9882205	AG+	A	🟢
ADIPOQ	rs2241766	GT+	G	🔴
ADIPOQ	rs16861194	AA+	G	🟢
FTO	rs17817449	TT+	A,G	🟢

Obesity

Gene	SNP	Genotype	Rare Allele	Result
AATK	rs7220048	TT+	C	🟢
ACMSD	rs387906598	Variant not found	T	⚪
ADCYAP1	rs1893154	CC-	G	🟢
ADIPOQ	rs17300539	GG+	A	🟢
ADIPOQ	rs6444175	Variant not found	A	⚪
ADIPOQ	rs1501299	CC-	A	🟢
ADRA2A	rs553668	Variant not found	G,T	⚪
ADRB2	rs1042714	GT+	C,T	🟢
ADRB3	rs4994	TT-	G	🟢
ADSS	rs3102460	CT+	T	🟢
AGRP	rs5030980	GG-	T	🟢
AK8	rs12552369	Variant not found	A	⚪
AKT1	rs1130214	GT-	C	🟢
ALLC	rs387907075	Variant not found	C	⚪
ANKAR	rs12053254	TT+	C	🟢
ANKK1	rs1800497	CT-	A	🟡
APOA1	rs1799837	Variant not found	T	⚪
APOA2	rs5082	TT-	A	🟢
APOA4	rs675	TT+	C	🟢
APOA5	rs662799	AA+	T	🟢
APOB	rs5742904	GG-	A,T	🟢
APOE	rs7412	TT+	T	🔴
ARHGAP11A	rs555387669	Variant not found		⚪
ARHGAP24	rs11732231	Variant not found	C,T	⚪
ARMC4	rs587777047	AA+	C	🟢
ARMC4	rs587777049	GG+	T	🟢
ASIC2	rs28936	Variant not found	C	⚪
ASTN2	rs111033570	Variant not found	A	⚪
AUTS2	rs1057517708	Variant not found	T	⚪
AUTS2	rs1057518198	Variant not found		⚪
BDNF	rs4923461	AA+	C,G	🟢
BDNF	rs925946	GT+	G	🟢
BDNF	rs10501087	TT+	C	🟢
BDNF	rs988712	GG+	G	🔴
BICC1	rs11006263	AA+	G	🟢
BICD1	rs2630578	Variant not found	C	⚪
C2CD4C	rs12978500	AC+	A	🟢
C8ORF34	rs1517114	CC+	A,G,T	🟢
CA8	rs267606695	Variant not found	C,G	⚪
CADM1	rs6589488	Variant not found	T	⚪
CAMK2A	rs2053053	Variant not found	A,C	⚪
CCDC33	rs2930291	Variant not found	A,C	⚪
CCDC77	rs1048466	AG+	A,C	🟢
CCK	rs9311317	TT-	G	🟢
CD46	rs35366573	CC+	T	🟢
CD46	rs7144	Variant not found	C	⚪
CDCA3	rs5443	CT+	T	🟡
CDHR3	rs6967330	GG+	A	🟢
CELF2	rs3740194	Variant not found	C	⚪
CLOCK	rs1801260	AA+	C,G,T	🟢
CLOCK	rs1554483	Variant not found	G	⚪
CLOCK	rs4864548	Variant not found	A	⚪
CLOCK	rs3749474	Variant not found	T	⚪
COL4A1	rs113994104	Variant not found	A,T	⚪
COL4A1	rs3742207	AC-	A,G	🟢
COLEC12	rs16944558	Variant not found	T	⚪
CSMD1	rs995322	Variant not found	C,G	⚪
CYP2E1	rs2031920	CC+	T	🟢
CYP2E1	rs2070672	AA+	G	🟢

Gene	SNP	Genotype	Rare Allele	Result
CYP2E1	rs72559710	GG+	A,C,T	
DAPL1	rs16843372	TT+	C	
DDX60L	rs17612333	Variant not found	A,G	
DLC1	rs121908500	Variant not found	C	
DLG2	rs10501570	Variant not found	C	
DMRT1	rs1057519638	Variant not found	T	
DOCK8	rs112321280	Variant not found	G	
DOCK8	rs192864327	GG+	C,T	
DOCK8	rs6476030	AA+	G	
ECT2	rs7646507	AG+	A	
EEPD1	rs4302748	AG+	A	
EHF	rs286913	CC-	G,T	
EVA1A	rs17011455	TT+	C	
FABP2	rs1799883	GG-	A,C,G	
FAM129A	rs147815528	Variant not found	A,C	
FAM19A2	rs10784285	Variant not found	T	
FAM209B	rs6024938	CT+	T	
FARP1	rs688872	TT-	G	
FLJ33534	rs16857178	GG+	A	
FSIP1	rs10152640	AG+	G	
FTO	rs1121890	Variant not found	G,T	
FTO	rs1121980	CC-	A	
FTO	rs11642841	CC+	A	
FTO	rs121918214	GG+	A	
FTO	rs1421085	TT+	C	
FTO	rs17817449	TT+	A,G	
FTO	rs3751812	GG+	T	
FTO	rs8050136	CC+	A	
FTO	rs9930506	AA+	G	
FTO	rs9939609	TT+	A	
FTO	rs1558902	TT+	A	
GABPB1	rs12594956	Variant not found	A	
GABPB1	rs8031031	Variant not found	T	
GCH1	rs10483639	Variant not found	C	
GCH1	rs104894433	Variant not found	A,C,T	
GCH1	rs104894434	Variant not found	G	
GHRL	rs26802	Variant not found	G	
GHRL	rs27647	Variant not found	C	
GHRL	rs34911341	CC+	T	
GHRL	rs35680	AA-	C	
GHRL	rs35683	Variant not found		
GHRL	rs42451	Variant not found	T	
GHRL	rs4684677	TT+	T	
GHRL	rs490683	Variant not found	A,C	
GHRL	rs696217	Variant not found	T	
GHSR	rs2232165	CC-	A	
GHSR	rs2922126	Variant not found	A	
GHSR	rs2948694	AG+	G	
GHSR	rs495225	Variant not found	A	
GHSR	rs509035	AG+	A	
GHSR	rs572169	AG-	T	
GMDS	rs9378688	Variant not found	A	
GPC5	rs2352028	CT+	G,T	
GSG1L	rs205391	CT+	C,G	
GSTM1	rs2071487	Variant not found	C	
HDAC9	rs11984041	CC+	T	
IFI16	rs6940	Variant not found	T	
IFNGR2	rs74315444	Variant not found	A	
IL-1A	rs1800587	CT-	A,C	
IL-1B	rs1143634	CT-	A	
IL-1RN	rs419598	TT+	C	
IL-6	rs12700386	Variant not found	A,G	
IL-6	rs1800795	CG+	G	
IL-6	rs1800797	AG+	G	
INSIG2	rs7566605	GG+	C	
INTERGENIC	rs10207060	GT+	A,G	
INTERGENIC	rs11070098	TT+	C	
INTERGENIC	rs11845134	Variant not found	T	

Gene	SNP	Genotype	Rare Allele	Result
INTERGENIC	rs12986207	Variant not found	A,C	⚪
INTERGENIC	rs17054265	CC+	G,T	🟢
INTERGENIC	rs17468244	AA+	G	🟢
INTERGENIC	rs2051457	GG+	T	🟢
INTERGENIC	rs2153299	AA-	C	🟢
INTERGENIC	rs2575029	CC+	C	🟢
INTERGENIC	rs5767992	CC+	C	🟢
INTERGENIC	rs6486986	GT+	T	🟢
INTERGENIC	rs37563	Variant not found	G	⚪
INTERGENIC	rs7647305	CT+	C	🟠
JDP2	rs741846	Variant not found	A,T	⚪
KCNB1	rs1057518621	Variant not found	T	⚪
KCNB1	rs1057521887	Variant not found	C	⚪
KCNMA1	rs2116830	CC-	C	🔴
KIF6	rs20455	Variant not found	G	⚪
KIF6	rs9380880	GG+	A	🟢
KIRREL	rs6427419	Variant not found	A	⚪
KLF7	rs7568369	Variant not found	T	⚪
LEP	rs7799039	Variant not found	A	⚪
LEPR	rs10493380	Variant not found	C	⚪
LEPR	rs1137100	Variant not found	G	⚪
LEPR	rs1137101	AA+	G	🟢
LEPR	rs1805094	CG+	C	🟠
LEPR	rs8179183	Variant not found	G	⚪
LEPR	rs1805134	TT+	C	🟢
LGALS17A	rs8103033	AG+	A	🟢
LHPP	rs12773846	GG+	A,C	🟢
LINC00704	rs1391511	Variant not found	G	⚪
LINC01299	rs6981992	GT+	A,T	🟢
LINC01500	rs405460	AC-	A,T	🟢
LIPC	rs113298164	Variant not found	T	⚪
LIPC	rs1800588	CC+	T	🟡
LIPC	rs261332	GG+	G	🟢
LPP	rs1152846	AG-	C	🟢
LPP	rs4686484	Variant not found	A	⚪
MC4R	rs1057517991	Variant not found	G	⚪
MC4R	rs10871777	AG+	G	🟠
MC4R	rs12970134	AG+	A	🟢
MC4R	rs17782313	CT+	C	🟡
MC4R	rs52820871	TT+	G	🟢
MDFIC	rs7784447	GG+	A	🟢
MSRA	rs545854	CG-	G	🟡
NAT2	rs1041983	CC+	T	🟢
NAT2	rs1208	GG+	G	🟡
NAT2	rs1799929	CT+	T	🟢
NAT2	rs1801279	GG+	A	🟢
NAT2	rs1801280	CC+	C	🟡
NAT2	rs1805158	CC+	A,T	🟢
NDUFA8	rs3818638	AG-	C	🟢
NFE2L2	rs6721961	GG+	C,G	🟢
NIPSNAP3B	rs2472476	AG-	T	🟢
NLRP8	rs306450	Variant not found	G	⚪
NMNAT2	rs4652795	CT+	T	🟢
NPM2	rs11776272	GG+	G	🟢
NXPH1	rs765855	GG+	G	🟢
PCDH9	rs17081231	AA+	G	🟢
PCSK1	rs6232	AG-	C	🟠
PFKP	rs6602024	GG+	A	🟢
PIP4K2A	rs746203	Variant not found	T	⚪
PKNOX2	rs10893366	CT+	T	🟢
PLEKHG1	rs17427389	GG+	A,T	🟢
PLIN1	rs894160	GG-	T	🟢
POC5	rs2112347	GT+	G	🟢
POC5	rs2307111	AG-	T	🟡
POMC	rs1042571	Variant not found	A	⚪
PPARG	rs13306747	Variant not found	A,G,T	⚪
PPARG	rs1801282	CG+	C	🔴
PPARG	rs3856806	CC+	T	🟢

Gene	SNP	Genotype	Rare Allele	Result
PPARGC1A	rs8192678	GG-	T	
PPARGC1B	rs7732671	Variant not found	C	
PPM1H	rs2029721	Variant not found	A	
PTPRD	rs10116682	Variant not found	A	
PTPRD	rs1975197	CC-	A	
PTPRN2	rs10274279	TT+	C	
PVALB	rs2022068	AA+	G	
PYY	rs1058046	Variant not found	C	
RAB17	rs2292873	AG-	T	
RASEF	rs10867921	AG+	A	
RBBP6	rs11860248	Variant not found	G	
RBFOX1	rs1057521725	Variant not found	A	
RBFOX1	rs1064794750	Variant not found	G	
RIC3	rs1528133	Variant not found	C,G	
RLN3	rs123277666	Variant not found		
RPTOR	rs2289759	Variant not found	G	
RSU1	rs11254160	AG+	A	
RYR2	rs1057517873	AA+	G	
S100P	rs3822262	AA-	G	
SCG3	rs16964476	Variant not found	G	
SCG3	rs3764220	Variant not found	G,T	
SDC3	rs2282440	Variant not found	A,C	
SERPINA12	rs61757459	Variant not found	A	
SLC22A2	rs316019	GG-	C	
SLC22A2	rs8177504	CC-	A,T	
SLC22A2	rs8177507	GG-	G,T	
SLC22A2	rs8177516	CC-	A,T	
SLC22A2	rs8177517	AA-	C,G	
SLC22A23	rs4959235	Variant not found	C	
SLC29A3	rs1084004	CC+	C,G	
SLC29A3	rs121912583	GG+	A	
SLC29A3	rs869025176	Variant not found	C	
SMYD3	rs11800820	CC+	A,T	
SNRPN	rs220030	Variant not found	A,C	
SOCS3	rs4969168	Variant not found	A	
SORBS1	rs11188352	Variant not found	G	
SPAG16	rs16851771	AA+	G	
SPOCK3	rs9312517	AA+	G	
STON2	rs6574644	AA+	A	
SYT1	rs17005598	Variant not found	A	
TBC1D1	rs35859249	CC+	A,T	
TCF4	rs9960767	CC+	C,G	
TCF7L2	rs7903146	CC+	G,T	
TM9SF2	rs9513627	AA+	A	
TMEM18	rs6548238	CC+	C	
TMEM229B	rs1077989	AC+	C	
TMEM45B	rs10894147	CC+	T	
TMOD1	rs1475545	AG-	T	
TNFRSF1B	rs5746059	Variant not found	G	
TPTE2P1	rs2483374	AC+	C,T	
TRABD2B	rs946836	Variant not found	G,T	
TRAPPC9	rs267607137	CC-	A	
TRIM66	rs4929923	CC+	C	
TUB	rs2272382	Variant not found	C	
UCP1	rs1800592	AG-	C	
UCP2	rs659366	CT+	T	
UGT2B7	rs12233719	GG+	A,C,T	
UGT2B7	rs7439366	Variant not found	C	
UNC13A	rs12608932	AC+	C	
UNC5C	rs12643654	Variant not found	G	
VSIG10	rs7957470	GG+	G	
WDPCP	rs11683229	Variant not found	G,T	
WDPCP	rs200322968	Variant not found	T	
WDR11-AS1	rs10937273	Variant not found	A	
WDR11-AS1	rs318240760	Variant not found	A,C	
WDR11-AS1	rs4783244	GG+	T	
ZBTB46	rs6062314	TT+	G,T	
ZNF536	rs3786800	AA-	C	

Obesity in Adolescents

Gene	SNP	Genotype	Rare Allele	Result
GPX4	rs757228	GG+	G	
LEPR	rs8179183	Variant not found	G	
MTNR1B	rs10830963	CC+	G	

Obesity in Type 2 Diabetes Patients

Gene	SNP	Genotype	Rare Allele	Result
GRB14	rs8192673	AG-	C	

PI3K

Gene	SNP	Genotype	Rare Allele	Result
PIK3R1	rs3756668	Variant not found	G	
PIK3R1	rs706713	Variant not found	T	
PIK3R1	rs3730089	GG+	A	
PIK3R1	rs7709243	TT+	C	
PIK3R1	rs7713645	Variant not found	C	
PIK3R1	rs1550805	Variant not found	T	

C-reactive protein

Gene	SNP	Genotype	Rare Allele	Result
CRP	rs1130864	CC-	A	
CRP	rs2808630	CT+	C	
CRP	rs3093059	TT-	G	
CRP	rs1205	CT+	T	
FTO	rs1558902	TT+	A	
IDO1	rs9657182	CT+	G,T	
IL-6R	rs4129267	CC+	G,T	

Weight Reduction in Liraglutide Treatment

Gene	SNP	Genotype	Rare Allele	Result
GLP1R	rs6923761	GG+	A	

Resistin

Gene	SNP	Genotype	Rare Allele	Result
RETN	rs1862513	Variant not found	G	
RETN	rs3745367	AA+	A	
RETN	rs3219175	Variant not found	A	
RETN	rs3219177	Variant not found	C	

Insulin Resistance

Gene	SNP	Genotype	Rare Allele	Result
ADIPOQ	rs17300539	GG+	A	
ADRB2	rs1042713	GG+	A	
APOA1	rs670	AG-	T	
APOC3	rs2854116	AG-	T	
APOC3	rs2854117	Variant not found	T	
C5ORF67	rs459193	TT-	G	
ENPP1	rs1044498	AC+	C	
GRB14	rs13389219	CT+	C	
IL-6	rs1800795	CG+	G	
IRS1	rs1801278	Variant not found	G,T	
IRS1	rs2943641	CT+	C	
PLIN1	rs894160	GG-	T	

Response to Metformin

Gene	SNP	Genotype	Rare Allele	Result
SLC22A1	rs628031	AA+	C,G	
SLC22A1	rs594709	GG+	A	
SLC2A2	rs8192675	GG-		
SLC47A1	rs2289669	AG+	A	
SRR	rs391300	GG-	T	

Diabetic retinopathy

Gene	SNP	Genotype	Rare Allele	Result
PON1	rs854560	Variant not found	C,G,T	

Risk of amputation in case of diabetic foot ulcer

Gene	SNP	Genotype	Rare Allele	Result

Gene	SNP	Genotype	Rare Allele	Result
CXCL12	rs1801157	Variant not found	T	⚪

Insulin Sensitivity

Gene	SNP	Genotype	Rare Allele	Result
C5ORF67	rs459193	TT-	G	🟠
GCG	rs4664447	AA-	C	🟢
GRB14	rs13389219	CT+	C	🔵

Wolfram Syndrome 1

Gene	SNP	Genotype	Rare Allele	Result
WFS1	rs28937891	GG+	T	🟢
WFS1	rs104893879	GG+	A	🟢
WFS1	rs71530923	CC+	T	🟢
WFS1	rs369107336	CC+	G	🟢
WFS1	rs797045076	II+	D	🟢
WFS1	rs28937892	CC+	T	🟢
WFS1	rs387906930	CC+	T	🟢
WFS1	rs199910987	GG+	A	🟢

Polycystic Ovary Syndrome

Gene	SNP	Genotype	Rare Allele	Result
DENND1A	rs2479106	GG+	G	🔴
FSHR	rs2268361	Variant not found	C	⚪
INSR	rs1799817	CT-	A	🟡
KISS1	rs12998	GG-	T	🟢
LEPR	rs1137101	AA+	G	🟢
LHB	rs1056917	Variant not found	A	⚪
LHCGR	rs13405728	AA+	G	🟢
LHCGR	rs2293275	GG-	C	🟡
MARK2P9	rs2209972	Variant not found	C	⚪
MTNR1A	rs2119882	Variant not found	C	⚪
MTNR1B	rs10830963	CC+	G	🟢
SUOX	rs705702	TT-	G	🟢
THADA	rs13429458	AA+	C	🟢
TNF	rs361525	GG+	A	🟢

Triglycerides

Gene	SNP	Genotype	Rare Allele	Result
ABCG8	rs6756629	GG+	T	🟢
APOA5	rs2075291	Variant not found	A,T	⚪
APOA5	rs2266788	TT-	A	🟢
APOA5	rs3135506	GG+	C	🟢
APOA5	rs662799	AA+	T	🟢
APOB	rs693	CT-	A	🟢
APOE	rs7412	TT+	T	🔴
BUD13	rs28927680	GG-	G	🟢
CILP2	rs16996148	GT+	T	🟠
DOCK7	rs10889353	AC+	C,T	🟢
FADS1	rs174547	TT+	C	🟢
FADS2	rs174570	CC+	T	🟢
FTO	rs17817449	TT+	A,G	🟢
GCKR	rs1260326	CT+	C	🟡
GCKR	rs780094	AG-	C	🟡
HMGCR	rs3846663	CT+	T	🟡
INTERGENIC	rs12130333	CT+	C	🟢
JMJD1C	rs10761731	Variant not found	T	⚪
LDLR	rs6511720	GG+	T	🟢
LEPR	rs1805134	TT+	C	🟢
LIPC	rs1800588	CC+	T	🟢
LPL	rs13702	AG-	A,C	🟢
LPL	rs285	CT+	T	🟢
LPL	rs320	GT+	G	🔵
LPL	rs328	Variant not found	G	⚪
LYPLAL1	rs2605100	GG+	G	🟠
MLXIPL	rs1051921	Variant not found	A	⚪
OR4A46P	rs7395662	GG+	A	🟢
PCIF1	rs7679	TT+	C	🟢
PCSK9	rs505151	Variant not found	G	⚪

Gene	SNP	Genotype	Rare Allele	Result
PHYHIP	rs4871976	Variant not found	A	○
PPARG	rs1801282	CG+	C	●
RAB11B	rs2967605	GG-	T	●
SHBG	rs6259	Variant not found	A	○
SUGP1	rs10401969	CT+	C	●
TBL2	rs17145738	CC+	T	●
TMEM241	rs9949617	CC+	T	●
TRIB1	rs2954029	AT+	T	●
XKR6	rs7819412	AG+	A,T	●
ZPR1	rs964184	CC+	C	●

P70S6K

Gene	SNP	Genotype	Rare Allele	Result
RPS6KB1	rs1292034	Variant not found	A	○

Uric Acid (Concentration)

Gene	SNP	Genotype	Rare Allele	Result
ABCG2	rs2231137	GG-	T	●
ABCG2	rs2231142	CC-	C,T	●
ABCG2	rs72552713	GG+	A	●
SLC2A9	rs6449213	TT+	T	●

Insulinogenic Index

Gene	SNP	Genotype	Rare Allele	Result
ANK1	rs516946	GG-	C	●
GCG	rs4664447	AA-	C	●
GRB14	rs13389219	CT+	C	●
PROX1	rs340874	AG-	C	●

Quantitative Body Mass Index

Gene	SNP	Genotype	Rare Allele	Result
AGRP	rs5030980	GG-	T	●
AGT	rs699	CT-	G	●
APOA1	rs670	AG-	T	●
APOA2	rs5082	TT-	A	●
APOA5	rs3135506	GG+	C	●
CLOCK	rs3749474	Variant not found	T	○
CTNNBL1	rs6013029	Variant not found	T	○
FTO	rs1121890	Variant not found	G,T	○
FTO	rs1421085	TT+	C	●
FTO	rs9939609	TT+	A	●
FTO	rs1558902	TT+	A	●
FTO	rs8044769	TT+	C	●
FUT2	rs601338	AG+	A	●
GHRL	rs35682	AA+	G	●
HIF1A	rs1957757	Variant not found	C	○
HSD11B1	rs846910	AG+	A	●
INTERGENIC	rs9819506	Variant not found	C	○
IRS2	rs1805097	Variant not found	T	○
MC4R	rs11152221	Variant not found	C	○
MC4R	rs17700633	AG+	A	●
MC4R	rs17782313	CT+	C	●
MC4R	rs2229616	GG-	C	●
MC4R	rs52820871	TT+	G	●
MC4R	rs12970134	AG+	A	●
MTIF3	rs4771122	AG+	G	●
MYO9B	rs11667918	TT+	C	●
PCSK1	rs6232	AG-	C	●
PCSK1	rs6234	Variant not found	C	○
PCSK1	rs6235	Variant not found	G	○
QPCTL	rs2287019	CC+	T	●
RIC3	rs1528133	Variant not found	C,G	○
TCF7L2	rs7903146	CC+	G,T	●
TERF2	rs4783704	CC+	C	●
TNF	rs361525	GG+	A	●
UCP1	rs6536991	TT+	C	●