





## GENE-PERSONA

GENETICS AND PERSONALIZED MEDICINE  
PREDICTIVE AND FUNCTIONAL MARKERS

POLYMORPHIC GENES

# GENETIC VARIANTS AND BODY WEIGHT CONTROL



CLICK AND FIND YOUR PROFILE

# GeneAdvise

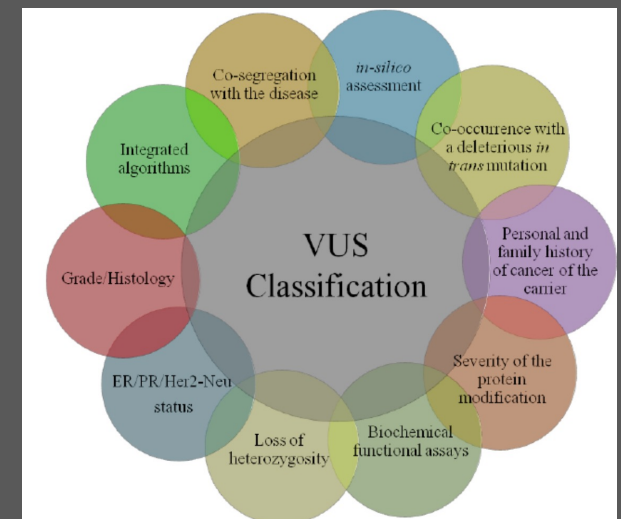
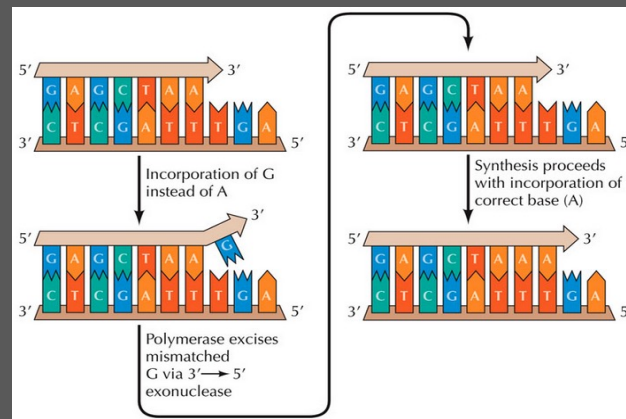
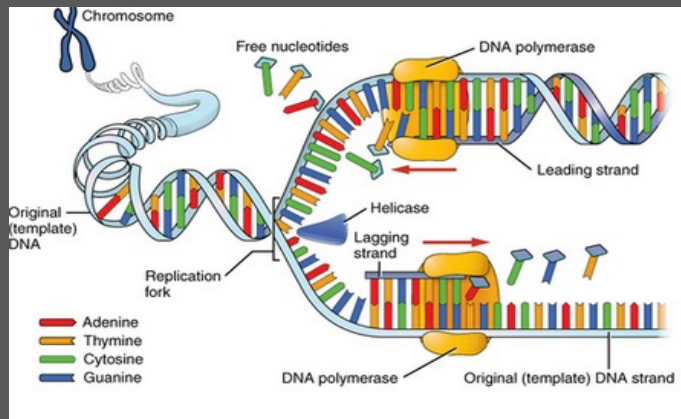
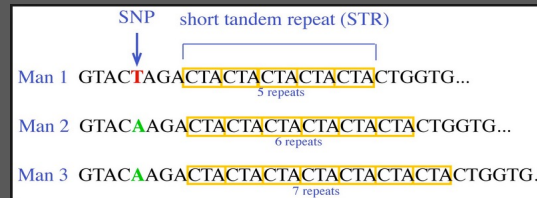
Some technical / scientific information.

Each gene is present in the cells of the body in two copies (alleles). The same gene can differ from one person to another even for just one base, one letter of its code: SNP (Single Nucleotide Polymorphism) Variations in the sequence of genes can give rise to Variants. Pathogenic variants have harmful effects on the functioning of the gene, even blocking it. Non-pathogenic variants have different frequency in the general population and are associated with differences that modify the function of the gene without compromising it.

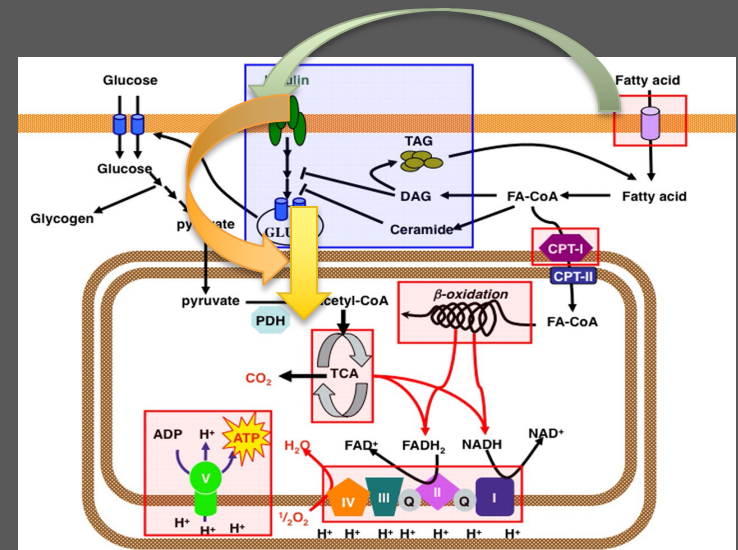
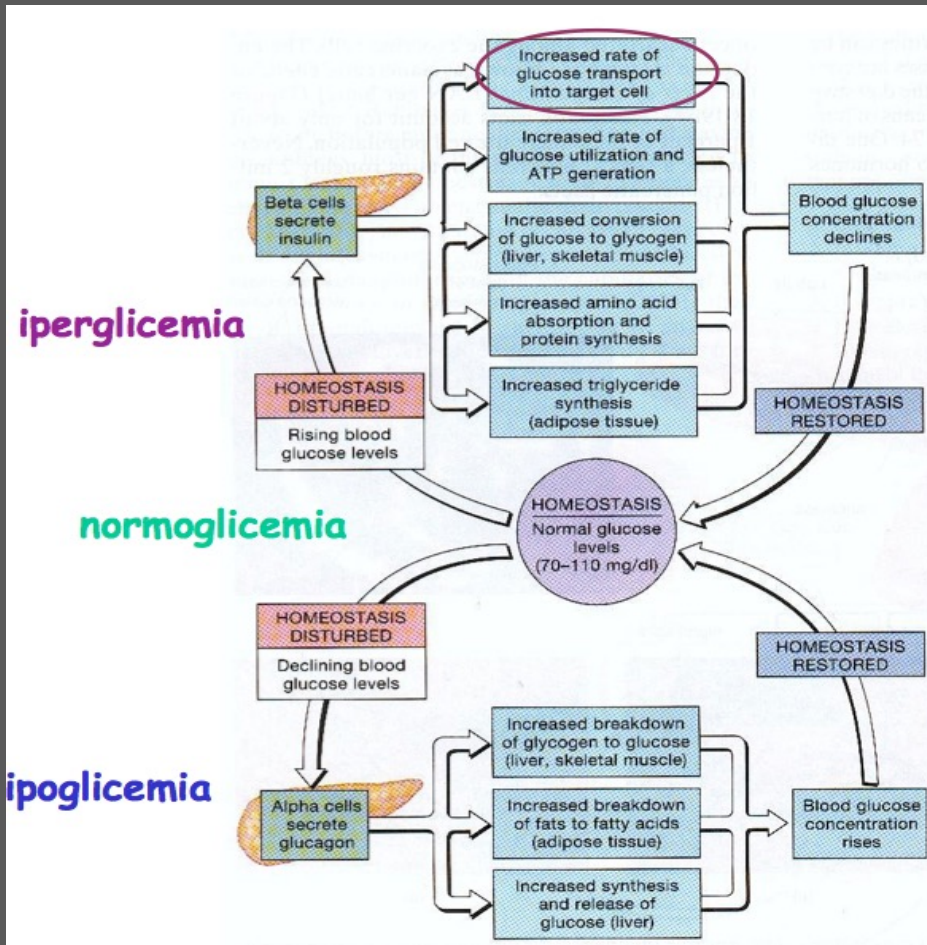
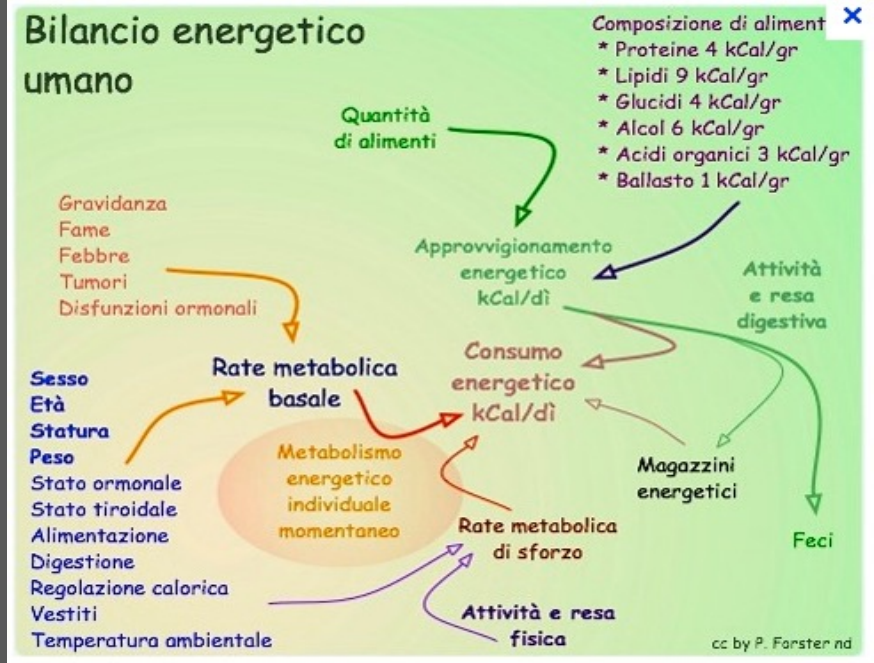
**Chromosome**  
 A thread-like structure of nucleic acids and proteins found in the nucleus of most living cells, carrying genetic information in the form of genes.

**Chromatid**  
 Each of the two thread-like strands into which a chromosome divides longitudinally during cell division. Each contains a double-helix of DNA.

**Chromatin**  
 The material of which the chromosomes of eukaryotes (other than bacteria) are composed, consisting of proteins, RNA and DNA.



PERSONALIZED PHYSIOLOGY  
FOOD AND ENERGETIC CONSUMPTION  
CARBO-LIPO COMPLEX



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***Fatty acid-binding protein-2 FABP2 (A54T G-A rs1799883)***

absorption of fatty acids, abdominal fat deposits, leptin levels (appetite and satiety, calorie expenditure)

***Peroxisome proliferator-activated receptor PPARg (P12A C-G rs1801282)***

Differentiation of fat cells, regulation of glucose-lipid balances, diet-sport combination

***Adrenergic-beta-2-receptor ADRB2 (G16R G-A rs1042713)***

use of cell fat for energy is strongly involved in the combined diet-sport action

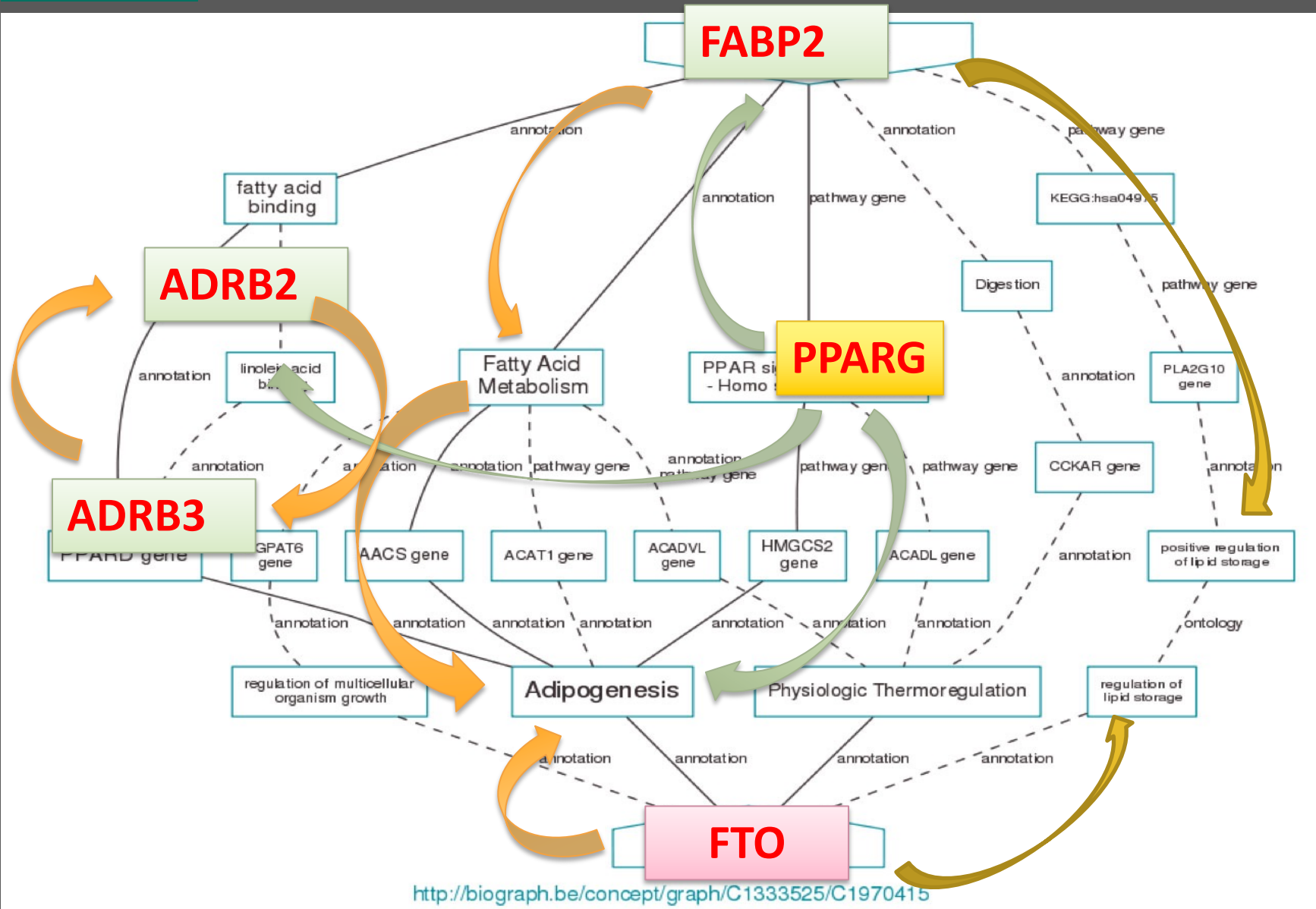
***Adrenergic-beta-3-receptor ADRB3 (W64R T-C rs4994)***

consumption of fat for thermoregulation purposes and is conditioned by physical activity

***Fat Mass and Obesity Associated Gene FTO (T-A rs9939609)***

risk of obesity, is modulated by physical activity





## Gene FABP2

### *Fatty acid-binding protein-2*

Localizzazione: cromosoma 4 (locus 4q28-q31)  
Dimensioni e struttura: 11.912 paia di basi, contiene 4 esoni  
Prodotto proteico corrispondente: proteina intracellulare, denominata *fatty acid-binding protein-2* (FABP2), composta da 132 aminoacidi.

FABP2 encodes the proteins involved in the uptake, transport and intracellular metabolism of long-chain fatty acids.

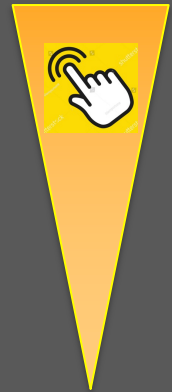
FABP2 is also able to bind unsaturated fatty acids, always with a long chain. It probably participates in the maintenance of energy homeostasis by functioning as a "lipid sensor".

## Polimorfismo A54T Genotipo AA-AG

The presence of the AA-AG genotype is correlated with:  
increased absorption of fatty acids in the intestine  
high body mass index and increased abdominal fat deposits

high level of leptin, a hormone in adipose tissue that limits satiety and the mechanisms of calorie expenditure

less efficacy of low caloric diets and exercise as weight loss strategies  
postprandial increase in triglycerid levels  
if homozygous



## Polimorfismo A54T Genotipo GG

The presence of the GG genotype is correlated with:

normal absorption of fatty acids

a normal postprandial level of triglycerides

greater responsiveness to low-calorie diets and exercise as strategies aimed at increasing weight loss.



## Gene PPAR

### *Peroxisome proliferator-activated receptor*

Localizzazione: cromosoma 3 (locus 3p25)

Dimensioni e struttura: 3302 paia di basi, contiene 6 esoni

Prodotto proteico: *peroxisome proliferator-activated receptor-gamma*

(PPAR $\gamma$ ), composta da 477 aminoacidi.

PPAR $\gamma$  regulates inflammatory processes, cell differentiation, glucose and lipid homeostasis,

PPAR $\gamma$  is a determining factor for the transformation and maturation of adipocytes.

Alterations in PPAR $\gamma$  function are related to diabetes-2. It is a candidate as a critical factor in obesity.

PPARCC polymorphism is related to decreased activity of the protein.

## Polimorfismo 12Pro/Ala Genotipo GG/CG

The presence of the GG / GC genotype is correlated with:

A lower susceptibility to body weight gain in relation to the amount of fat consumed in the diet

High response to weight loss following constant exercise and a controlled diet.



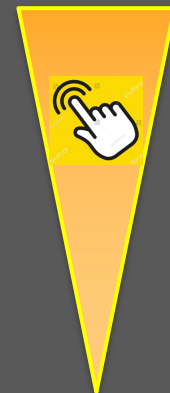
## FABP2 AA-AG

## Polimorfismo 12Pro/Ala Genotipo CC

The presence of the CC genotype is correlated with:

greater sensitivity of the Body Mass Index to the amount of fat consumed in the diet

ability to lose weight poorly conditioned by exercise





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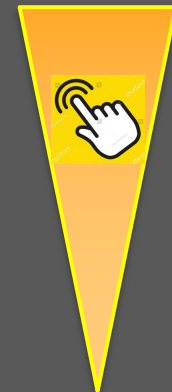
FABP2 GG

## Polimorfismo 12Pro/Ala Genotipo CC

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## Gene ADRB2

Localizzazione: cromosoma 5 (locus 5q31-q32)

Dimensioni e struttura: 2033 paia di basi,  
contiene 4 esoni

Prodotto : proteina intracellulare, **adrenergic- beta-2- receptor** (ADRB2), composta da 413 aminoacidi.

ADRB2 encodes the type 2 beta adrenergic receptor which inserts into the cell membrane where it interacts with mediators (adrenaline / noradrenaline).

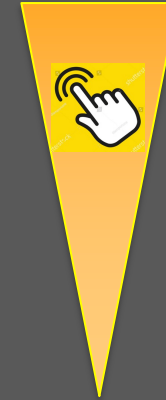
The ADRB2 receptor is directly associated with its final effector, an L-type calcium channel (Ca (V) 1.2). This receptor / channel complex binds to a cAMP-dependent G protein that allows for the rapid transmission of specific biochemical signals.

ADRB2 is preferentially expressed in adipose tissue and is responsible for the processes of mobilization of fat for energy purposes.

### Polimorfismo 16Gly/Arg Genotipo AA/AG

The presence of the AA / AG genotype:

Increase in pathology in asthmatic patients  
greater weight gain a low attitude to lose weight  
following physical exercise



### Polimorfismo 16Gly/Arg Genotipo GG

The presence of the GG genotype:

low susceptibility to weight gain with increasing age  
  
good predisposition to lose weight following exercise good aerobic sports performance



FABP2 GG  
PPARG GG-CG

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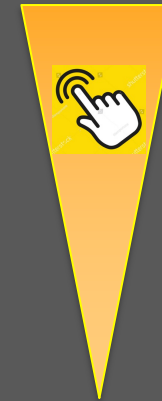
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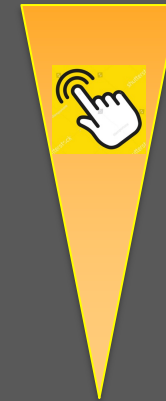
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FABP2 GG  
PPARG CC

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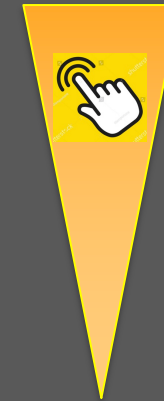
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FABP2 AA-AG  
PPARG CC



## Gene ADRB3

Localizzazione: cromosoma 8 (locus 8p12-p11.2)  
Dimensioni e struttura: 10672 paia di basi, non contiene introni  
Prodotto: proteina intracellulare, **adrenergic- beta- 3- receptor** (ADRB3), composta da 408 aminoacidi.

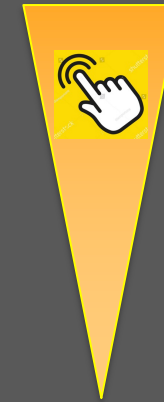
ADRB3 encodes the type 3 beta adrenergic receptor, which regulates cellular or tissue functions by acting with transmitters such as adrenaline or noradrenaline.

ADRB3 is expressed in visceral adipose tissue and is present in fat deposits, where it is involved in lipolysis processes and thermal regulation.

## Polimorfismo 64Arg/Trp Genotipo CC/CT

The presence of the CC / CT genotype:

reduced lipolysis in response to catecholamines and consequent lower response to physical activity as a strategy aimed at weight loss  
Increase in body mass index and greater risk of obesity poor responsiveness to low-calorie diets



FABP2 GG  
PPARG GG-CG  
ADRB2 AA-AG

## Polimorfismo 64Arg/Trp Genotipo TT

The presence of the TT genotype:

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good predisposition to loose weight following exercise



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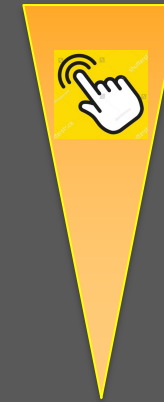
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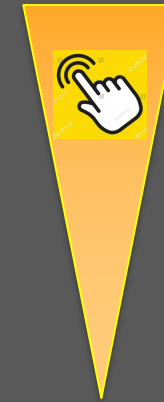
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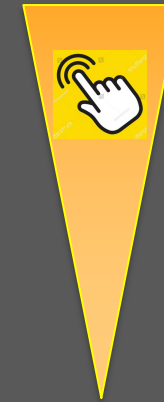
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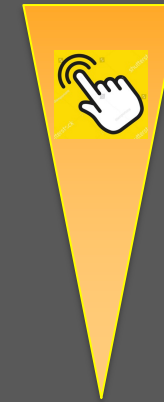
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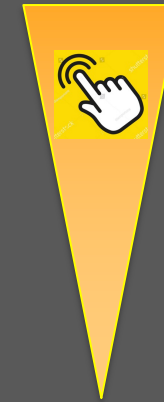
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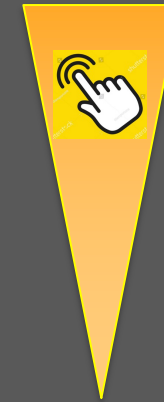
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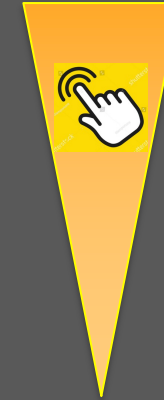
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FABP2 AA-AG  
PPARG CC  
ADRB2 GG

## Polimorfismo 64Arg/Trp Genotipo TT

The presence of the TT genotype:

good response to low-caloric diets

good predisposition to loose weight following exercise



## Gene FTO “FAT GENE”

Localizzazione: cromosoma 16  
Dimensioni e struttura: 410505 paia di basi,  
contiene 9 esoni  
Prodotto : proteina diossigenase alfa-  
chetoglutarato-dipendente, composta da 505  
aminoacidi.

FTO (Fat Mass and Obesity  
Associated Gene) has unknown  
function.

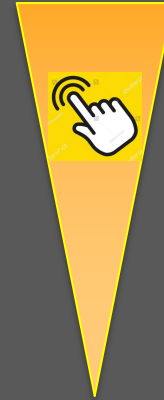
It appears to be a role of FTO in DNA  
demethylation. Its level of expression  
is regulated by the nutritional  
behaviour.

FTO has particular importance in  
regulating body weight due to the  
relationship between its  
polymorphisms and the impact of  
physical exercise on anthropometric  
parameters.

### Rs9939609 Genotipo AA/AT Presence of genotype AA/AT

increase in anthropometric indices,  
risk of obesity

good responsiveness of the subject to physical  
exercise



### Rs9939609 Genotipo TT Presence of genotype TT

normal increase in anthropometric  
parameters, low risk of obesity.

poor sensitivity of the body mass index to  
physical exercise as a strategy for weight loss



FABP2 GG  
PPARG GG-CG  
ADRB2 AA-AG  
ADRB3 CC-CT

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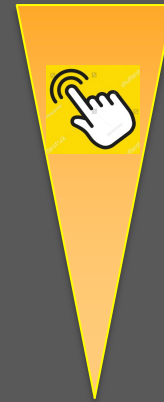
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increase in anthropometric indices,  
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good responsiveness of the subject to physical  
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ADRB3 TT



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Localizzazione: cromosoma 16  
Dimensioni e struttura: 410505 paia di basi,  
contiene 9 esoni  
Prodotto : proteina diossigenase alfa-  
chetoglutarato-dipendente, composta da 505  
aminoacidi.

FTO (Fat Mass and Obesity  
Associated Gene) has unknown  
function.

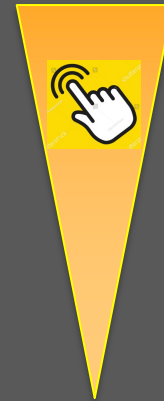
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physical exercise on anthropometric  
parameters.

### Rs9939609 Genotipo AA/AT Presence of genotype AA/AT

increase in anthropometric indices,  
risk of obesity

good responsiveness of the subject to physical  
exercise



### Rs9939609 Genotipo TT Presence of genotype TT

normal increase in anthropometric  
parameters, low risk of obesity.

poor sensitivity of the body mass index to  
physical exercise as a strategy for weight loss



FABP2 GG  
PPARG GG-CG  
ADRB2 GG  
ADRB3 AA-AT

## Gene FTO “FAT GENE”

Localizzazione: cromosoma 16  
Dimensioni e struttura: 410505 paia di basi,  
contiene 9 esoni  
Prodotto : proteina diossigenase alfa-  
chetoglutarato-dipendente, composta da 505  
aminoacidi.

FTO (Fat Mass and Obesity  
Associated Gene) has unknown  
function.

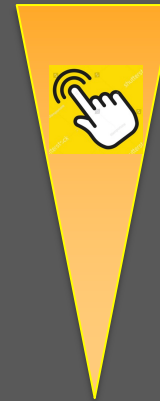
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good responsiveness of the subject to physical  
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normal increase in anthropometric  
parameters, low risk of obesity.

poor sensitivity of the body mass index to  
physical exercise as a strategy for weight loss



FABP2 GG  
PPARG GG-CG  
ADRB2 GG  
ADRB3 TT

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Localizzazione: cromosoma 16  
Dimensioni e struttura: 410505 paia di basi,  
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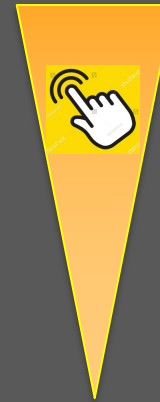
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normal increase in anthropometric  
parameters, low risk of obesity.

poor sensitivity of the body mass index to  
physical exercise as a strategy for weight loss



FABP2 AA-AG  
PPARG GG-CG  
ADRB2 AA-AG  
ADRB3 AA-AT

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Localizzazione: cromosoma 16  
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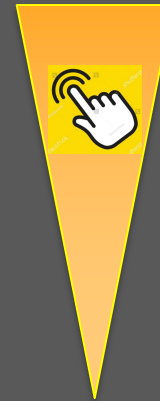
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risk of obesity

good responsiveness of the subject to physical  
exercise



### Rs9939609 Genotipo TT Presence of genotype TT

normal increase in anthropometric  
parameters, low risk of obesity.

poor sensitivity of the body mass index to  
physical exercise as a strategy for weight loss



FABP2 AA-AG  
PPARG GG-CG  
ADRB2 AA-AG  
ADRB3 TT

## Gene FTO “FAT GENE”

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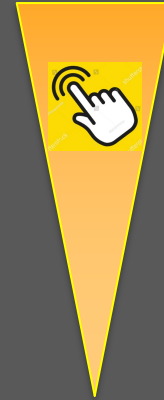
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good responsiveness of the subject to physical  
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### Rs9939609 Genotipo TT Presence of genotype TT

normal increase in anthropometric  
parameters, low risk of obesity.

poor sensitivity of the body mass index to  
physical exercise as a strategy for weight loss



FABP2 AA-AG  
PPARG GG-CG  
ADRB2 GG  
ADRB3 AT-TT

## Gene FTO “FAT GENE”

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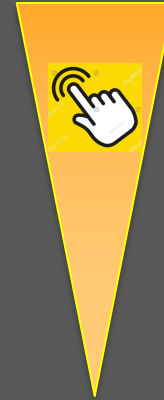
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good responsiveness of the subject to physical  
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normal increase in anthropometric  
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poor sensitivity of the body mass index to  
physical exercise as a strategy for weight loss



FABP2 AA-AG  
PPARG GG-CG  
ADRB2 GG  
ADRB3 TT

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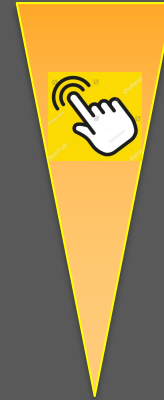
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increase in anthropometric indices,  
risk of obesity

good responsiveness of the subject to physical  
exercise



### Rs9939609 Genotipo TT Presence of genotype TT

normal increase in anthropometric  
parameters, low risk of obesity.

poor sensitivity of the body mass index to  
physical exercise as a strategy for weight loss



FABP2 GG  
PPARG CC  
ADRB2 AA-AG  
ADRB3 AA-AT

## Gene FTO “FAT GENE”

Localizzazione: cromosoma 16  
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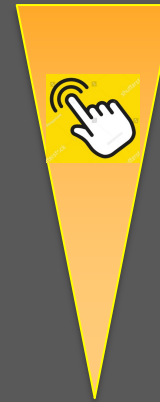
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increase in anthropometric indices,  
risk of obesity

good responsiveness of the subject to physical  
exercise



### Rs9939609 Genotipo TT Presence of genotype TT

normal increase in anthropometric  
parameters, low risk of obesity.

poor sensitivity of the body mass index to  
physical exercise as a strategy for weight loss



FABP2 GG  
PPARG CC  
ADRB2 AA-AG  
ADRB3 TT



## Gene FTO “FAT GENE”

Localizzazione: cromosoma 16  
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increase in anthropometric indices,  
risk of obesity

good responsiveness of the subject to physical  
exercise



### Rs9939609 Genotipo TT Presence of genotype TT

normal increase in anthropometric  
parameters, low risk of obesity.

poor sensitivity of the body mass index to  
physical exercise as a strategy for weight loss



FABP2 GG  
PPARG CC  
ADRB2 GG  
ADRB3 AA-AT

## Gene FTO “FAT GENE”

Localizzazione: cromosoma 16  
Dimensioni e struttura: 410505 paia di basi, contiene 9 esoni  
Prodotto : proteina diossigenase alfa-chetoglutarato-dipendente, composta da 505 aminoacidi.

FTO (Fat Mass and Obesity Associated Gene) has unknown function.

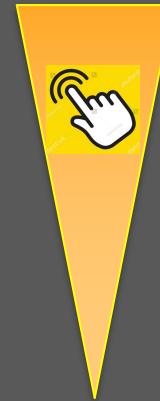
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increase in anthropometric indices,  
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good responsiveness of the subject to physical exercise



### Rs9939609 Genotipo TT Presence of genotype TT

normal increase in anthropometric parameters, low risk of obesity.

poor sensitivity of the body mass index to physical exercise as a strategy for weight loss



FABP2 GG  
PPARG CC  
ADRB2 GG  
ADRB3 TT

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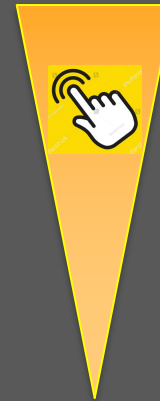
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good responsiveness of the subject to physical  
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poor sensitivity of the body mass index to  
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FABP2 AA-AG  
PPARG CC  
ADRB2 GG  
ADRB3 AA-AT

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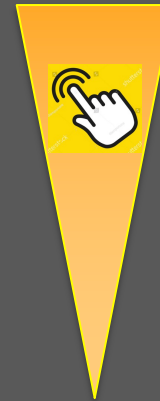
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increase in anthropometric indices,  
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good responsiveness of the subject to physical  
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### Rs9939609 Genotipo TT Presence of genotype TT

normal increase in anthropometric  
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poor sensitivity of the body mass index to  
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FABP2 AA-AG  
PPARG CC  
ADRB2 GG  
ADRB3 TT

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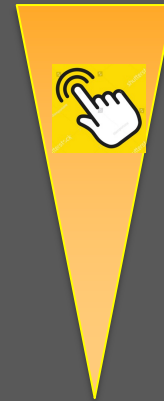
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poor sensitivity of the body mass index to  
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FABP2 AA-AG  
PPARG CC  
ADRB2 AA-AG  
ADRB3 TT

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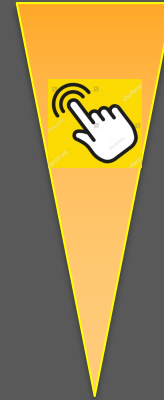
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poor sensitivity of the body mass index to  
physical exercise as a strategy for weight loss








FABP2 AA-AG  
PPARG CC  
ADRB2 AA-AG  
ADRB3 TAA-AT

GENETIC TRAITS REGULATE THE BODY WEIGHT CONTROL WITH THE METABOLIC BALANCE OF DIETARY FATS AND CARBOHYDRATES, THE PREDISPOSITION TO OBESITY, THE EFFICACY OF TRAINING EXERCISE AND DIET INTAKE. THE PANEL SHOWS FIVE CHARACTERS CONDITIONING THE WEIGHT CONTROL, EACH WITH DIFFERENT TOLERANCE RANGES ALSO CONDENSED IN COLORS (GREEN – GOOD PERFORMANCE, YELLOW-MID RATE, RED-LOW RATE). THE DIETARY COMPOSITION DOES NOT CONSIDER THE ACTUAL BMI.

THE PERSONAL DIETARY PROGRAM WILL BE COMPLETED BY PHYSICIAN, TRAINER, NUTRITIONIST. THIS IS NOT A MEDICAL DEVICE, IT IS INFORMATIVE ITEM FOR PHYSICIANS.

FABP2 GG  
 PPARG GG-CG  
 ADRB2 AA-AG  
 ADRB3 CC-CT  
 FTO AA-AT

## SENSITIVITY-TOLERANCE FOR BODY WEIGHT REGULATION

|   |  |                 |    |
|---|--|-----------------|----|
| SENSITIVE/TOLERANT TO FAT               |  MODERATE TOLERANCE           | DIETARY INTAKE  |    |
| SENSITIVE/TOLERANT TO CARBOHYDRATE      |  VERY SENSITIVE-LOW TOLERANCE | FAT %           | 30 |
| PRONE TO OBESITY                        |  PRONE                        | CARBOHYDRATES % | 25 |
| EFFECT SPORT-EXERCISE IN WEIGHT CONTROL |  MODERATE                   | PROTEIN %       | 45 |
| EFFECT OF DIET IN BODY WEIGHT CONTROL   |  MODERATE                   | FIBERS g        | 35 |






GENETIC TRAITS REGULATE THE BODY WEIGHT CONTROL WITH THE METABOLIC BALANCE OF DIETARY FATS AND CARBOHYDRATES, THE PREDISPOSITION TO OBESITY, THE EFFICACY OF TRAINING EXERCISE AND DIET INTAKE. THE PANEL SHOWS FIVE CHARACTERS CONDITIONING THE WEIGHT CONTROL, EACH WITH DIFFERENT TOLERANCE RANGES ALSO CONDENSED IN COLORS (GREEN – GOOD PERFORMANCE, YELLOW-MID RATE, RED-LOW RATE). THE DIETARY COMPOSITION DOES NOT CONSIDER THE ACTUAL BMI.

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FABP2 GG  
 PPARG GG-CG  
 ADRB2 AA-AG  
 ADRB3 CC-CT  
 FTO TT

## SENSITIVITY-TOLERANCE FOR BODY WEIGHT REGULATION

1

|   |  |                 |    |
|---|--|-----------------|----|
| SENSITIVE/TOLERANT TO FAT               |  MODERATE TOLERANCE           | DIETARY INTAKE  |    |
| SENSITIVE/TOLERANT TO CARBOHYDRATE      |  VERY SENSITIVE-LOW TOLERANCE | FAT %           | 30 |
| PRONE TO OBESITY                        |  NOT PRONE                    | CARBOHYDRATES % | 25 |
| EFFECT SPORT-EXERCISE IN WEIGHT CONTROL |  LOW                        | PROTEIN %       | 45 |
| EFFECT OF DIET IN BODY WEIGHT CONTROL   |  MODERATE                   | FIBERS g        | 35 |








GENETIC TRAITS REGULATE THE BODY WEIGHT CONTROL WITH THE METABOLIC BALANCE OF DIETARY FATS AND CARBOHYDRATES, THE PREDISPOSITION TO OBESITY, THE EFFICACY OF TRAINING EXERCISE AND DIET INTAKE. THE PANEL SHOWS FIVE CHARACTERS CONDITIONING THE WEIGHT CONTROL, EACH WITH DIFFERENT TOLERANCE RANGES ALSO CONDENSED IN COLORS (GREEN – GOOD PERFORMANCE, YELLOW-MID RATE, RED-LOW RATE). THE DIETARY COMPOSITION DOES NOT CONSIDER THE ACTUAL BMI.

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FABP2 GG  
 PPARG GG-CG  
 ADRB2 AA-AG  
 ADRB3 TT  
 FTO AA-AT

## SENSITIVITY-TOLERANCE FOR BODY WEIGHT REGULATION

|   |  |                 |    |
|---|--|-----------------|----|
| SENSITIVE/TOLERANT TO FAT               |  HIGHER TOLERANCE | DIETARY INTAKE  |    |
| SENSITIVE/TOLERANT TO CARBOHYDRATE      |  MODERATE         | FAT %           | 30 |
| PRONE TO OBESITY                        |  PRONE            | CARBOHYDRATES % | 45 |
| EFFECT SPORT-EXERCISE IN WEIGHT CONTROL |  VERY HIGH      | PROTEIN %       | 20 |
| EFFECT OF DIET IN BODY WEIGHT CONTROL   |  HIGH           | FIBERS g        | 25 |

GENETIC TRAITS REGULATE THE BODY WEIGHT CONTROL WITH THE METABOLIC BALANCE OF DIETARY FATS AND CARBOHYDRATES, THE PREDISPOSITION TO OBESITY, THE EFFICACY OF TRAINING EXERCISE AND DIET INTAKE. THE PANEL SHOWS FIVE CHARACTERS CONDITIONING THE WEIGHT CONTROL, EACH WITH DIFFERENT TOLERANCE RANGES ALSO CONDENSED IN COLORS (GREEN – GOOD PERFORMANCE, YELLOW-MID RATE, RED-LOW RATE). THE DIETARY COMPOSITION DOES NOT CONSIDER THE ACTUAL BMI.

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FABP2 GG  
 PPARG GG-CG  
 ADRB2 AA-AG  
 ADRB3 TT  
 FTO TT

## SENSITIVITY-TOLERANCE FOR BODY WEIGHT REGULATION

|   |  |                 |    |
|---|--|-----------------|----|
| SENSITIVE/TOLERANT TO FAT               |  HIGHER TOLERANCE   | DIETARY INTAKE  |    |
| SENSITIVE/TOLERANT TO CARBOHYDRATE      |  MODERATE TOLERANCE | FAT %           | 30 |
| PRONE TO OBESITY                        |  NOT PRONE          | CARBOHYDRATES % | 45 |
| EFFECT SPORT-EXERCISE IN WEIGHT CONTROL |  HIGH             | PROTEIN %       | 20 |
| EFFECT OF DIET IN BODY WEIGHT CONTROL   |  HIGH             | FIBERS g        | 25 |






GENETIC TRAITS REGULATE THE BODY WEIGHT CONTROL WITH THE METABOLIC BALANCE OF DIETARY FATS AND CARBOHYDRATES, THE PREDISPOSITION TO OBESITY, THE EFFICACY OF TRAINING EXERCISE AND DIET INTAKE. THE PANEL SHOWS FIVE CHARACTERS CONDITIONING THE WEIGHT CONTROL, EACH WITH DIFFERENT TOLERANCE RANGES ALSO CONDENSED IN COLORS (GREEN – GOOD PERFORMANCE, YELLOW-MID RATE, RED-LOW RATE). THE DIETARY COMPOSITION DOES NOT CONSIDER THE ACTUAL BMI.

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FABP2 GG  
 PPARG GG-CG  
 ADRB2 GG  
 ADRB3 AA-AT  
 FTO AA-AT

## SENSITIVITY-TOLERANCE FOR BODY WEIGHT REGULATION

3






|   |   |                 |    |
|---|---|-----------------|----|
| SENSITIVE/TOLERANT TO FAT               |  SENSITIVE-LOW TOLERANCE | DIETARY INTAKE  |    |
| SENSITIVE/TOLERANT TO CARBOHYDRATE      |  MODERATE TOLERANCE      | FAT %           | 30 |
| PRONE TO OBESITY                        |  PRONE                   | CARBOHYDRATES % | 25 |
| EFFECT SPORT-EXERCISE IN WEIGHT CONTROL |  HIGH                  | PROTEIN %       | 45 |
| EFFECT OF DIET IN BODY WEIGHT CONTROL   |  MODERATE              | FIBERS g        | 35 |

GENETIC TRAITS REGULATE THE BODY WEIGHT CONTROL WITH THE METABOLIC BALANCE OF DIETARY FATS AND CARBOHYDRATES, THE PREDISPOSITION TO OBESITY, THE EFFICACY OF TRAINING EXERCISE AND DIET INTAKE. THE PANEL SHOWS FIVE CHARACTERS CONDITIONING THE WEIGHT CONTROL, EACH WITH DIFFERENT TOLERANCE RANGES ALSO CONDENSED IN COLORS (GREEN – GOOD PERFORMANCE, YELLOW-MID RATE, RED-LOW RATE). THE DIETARY COMPOSITION DOES NOT CONSIDER THE ACTUAL BMI.

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FABP2 GG  
 PPARG GG-CG  
 ADRB2 GG  
 ADRB3 AA-AT  
 FTO TT

## SENSITIVITY-TOLERANCE FOR BODY WEIGHT REGULATION






|   |   |                 |    |
|---|---|-----------------|----|
| SENSITIVE/TOLERANT TO FAT               |  SENSITIVE-LOW TOLERANCE | DIETARY INTAKE  |    |
| SENSITIVE/TOLERANT TO CARBOHYDRATE      |  MODERATE TOLERANCE      | FAT %           | 30 |
| PRONE TO OBESITY                        |  NOT PRONE               | CARBOHYDRATES % | 25 |
| EFFECT SPORT-EXERCISE IN WEIGHT CONTROL |  MODERATE              | PROTEIN %       | 45 |
| EFFECT OF DIET IN BODY WEIGHT CONTROL   |  MODERATE              | FIBERS g        | 35 |

GENETIC TRAITS REGULATE THE BODY WEIGHT CONTROL WITH THE METABOLIC BALANCE OF DIETARY FATS AND CARBOHYDRATES, THE PREDISPOSITION TO OBESITY, THE EFFICACY OF TRAINING EXERCISE AND DIET INTAKE. THE PANEL SHOWS FIVE CHARACTERS CONDITIONING THE WEIGHT CONTROL, EACH WITH DIFFERENT TOLERANCE RANGES ALSO CONDENSED IN COLORS (GREEN – GOOD PERFORMANCE, YELLOW-MID RATE, RED-LOW RATE). THE DIETARY COMPOSITION DOES NOT CONSIDER THE ACTUAL BMI.

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FABP2 GG  
 PPARG GG-CG  
 ADRB2 GG  
 ADRB3 TT  
 FTO AA-AT

## SENSITIVITY-TOLERANCE FOR BODY WEIGHT REGULATION

|   |  |                 |    |
|---|--|-----------------|----|
| SENSITIVE/TOLERANT TO FAT               |  HIGHER TOLERANCE   | DIETARY INTAKE  |    |
| SENSITIVE/TOLERANT TO CARBOHYDRATE      |  MODERATE TOLERANCE | FAT %           | 35 |
| PRONE TO OBESITY                        |  PRONE              | CARBOHYDRATES % | 40 |
| EFFECT SPORT-EXERCISE IN WEIGHT CONTROL |  VERY HIGH        | PROTEIN %       | 25 |
| EFFECT OF DIET IN BODY WEIGHT CONTROL   |  HIGH             | FIBERS g        | 25 |

GENETIC TRAITS REGULATE THE BODY WEIGHT CONTROL WITH THE METABOLIC BALANCE OF DIETARY FATS AND CARBOHYDRATES, THE PREDISPOSITION TO OBESITY, THE EFFICACY OF TRAINING EXERCISE AND DIET INTAKE. THE PANEL SHOWS FIVE CHARACTERS CONDITIONING THE WEIGHT CONTROL, EACH WITH DIFFERENT TOLERANCE RANGES ALSO CONDENSED IN COLORS (GREEN – GOOD PERFORMANCE, YELLOW-MID RATE, RED-LOW RATE). THE DIETARY COMPOSITION DOES NOT CONSIDER THE ACTUAL BMI.

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FABP2 GG  
 PPARG GG-CG  
 ADRB2 GG  
 ADRB3 TT  
 FTO TT

## SENSITIVITY-TOLERANCE FOR BODY WEIGHT REGULATION






|   |  |                 |    |
|---|--|-----------------|----|
| SENSITIVE/TOLERANT TO FAT               |  HIGHER TOLERANCE   | DIETARY INTAKE  |    |
| SENSITIVE/TOLERANT TO CARBOHYDRATE      |  MODERATE TOLERANCE | FAT %           | 35 |
| PRONE TO OBESITY                        |  NOT PRONE          | CARBOHYDRATES % | 40 |
| EFFECT SPORT-EXERCISE IN WEIGHT CONTROL |  HIGH             | PROTEIN %       | 25 |
| EFFECT OF DIET IN BODY WEIGHT CONTROL   |  HIGH             | FIBERS g        | 25 |

GENETIC TRAITS REGULATE THE BODY WEIGHT CONTROL WITH THE METABOLIC BALANCE OF DIETARY FATS AND CARBOHYDRATES, THE PREDISPOSITION TO OBESITY, THE EFFICACY OF TRAINING EXERCISE AND DIET INTAKE. THE PANEL SHOWS FIVE CHARACTERS CONDITIONING THE WEIGHT CONTROL, EACH WITH DIFFERENT TOLERANCE RANGES ALSO CONDENSED IN COLORS (GREEN – GOOD PERFORMANCE, YELLOW-MID RATE, RED-LOW RATE). THE DIETARY COMPOSITION DOES NOT CONSIDER THE ACTUAL BMI.

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FABP2 AA-AG  
 PPARG GG-CG  
 ADRB2 AA-AG  
 ADRB3 AA-AT  
 FTO AA-AT

## SENSITIVITY-TOLERANCE FOR BODY WEIGHT REGULATION






|   |  |                 |    |
|---|--|-----------------|----|
| SENSITIVE/TOLERANT TO FAT               |  VERY SENSITIVE-LOW TOLERANCE | DIETARY INTAKE  |    |
| SENSITIVE/TOLERANT TO CARBOHYDRATE      |  MODERATE TOLERANCE           | FAT %           | 20 |
| PRONE TO OBESITY                        |  PRONE                        | CARBOHYDRATES % | 45 |
| EFFECT SPORT-EXERCISE IN WEIGHT CONTROL |  LOW                        | PROTEIN %       | 35 |
| EFFECT OF DIET IN BODY WEIGHT CONTROL   |  LOW                        | FIBERS g        | 30 |

GENETIC TRAITS REGULATE THE BODY WEIGHT CONTROL WITH THE METABOLIC BALANCE OF DIETARY FATS AND CARBOHYDRATES, THE PREDISPOSITION TO OBESITY, THE EFFICACY OF TRAINING EXERCISE AND DIET INTAKE. THE PANEL SHOWS FIVE CHARACTERS CONDITIONING THE WEIGHT CONTROL, EACH WITH DIFFERENT TOLERANCE RANGES ALSO CONDENSED IN COLORS (GREEN – GOOD PERFORMANCE, YELLOW-MID RATE, RED-LOW RATE). THE DIETARY COMPOSITION DOES NOT CONSIDER THE ACTUAL BMI.

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FABP2 AA-AG  
 PPARG GG-CG  
 ADRB2 AA-AG  
 ADRB3 AA-AT  
 FTO TT

## SENSITIVITY-TOLERANCE FOR BODY WEIGHT REGULATION

|   |  |                 |    |
|---|--|-----------------|----|
| SENSITIVE/TOLERANT TO FAT               |  VERY SENSITIVE-LOW TOLERANCE | DIETARY INTAKE  |    |
| SENSITIVE/TOLERANT TO CARBOHYDRATE      |  MODERATE TOLERANCE           | FAT %           | 20 |
| PRONE TO OBESITY                        |  NOT PRONE                    | CARBOHYDRATES % | 45 |
| EFFECT SPORT-EXERCISE IN WEIGHT CONTROL |  LOW                        | PROTEIN %       | 35 |
| EFFECT OF DIET IN BODY WEIGHT CONTROL   |  LOW                        | FIBERS g        | 30 |








GENETIC TRAITS REGULATE THE BODY WEIGHT CONTROL WITH THE METABOLIC BALANCE OF DIETARY FATS AND CARBOHYDRATES, THE PREDISPOSITION TO OBESITY, THE EFFICACY OF TRAINING EXERCISE AND DIET INTAKE. THE PANEL SHOWS FIVE CHARACTERS CONDITIONING THE WEIGHT CONTROL, EACH WITH DIFFERENT TOLERANCE RANGES ALSO CONDENSED IN COLORS (GREEN – GOOD PERFORMANCE, YELLOW-MID RATE, RED-LOW RATE). THE DIETARY COMPOSITION DOES NOT CONSIDER THE ACTUAL BMI.

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FABP2 AA-AG  
 PPARG GG-CG  
 ADRB2 AA-AG  
 ADRB3 TT  
 FTO AA-AT

## SENSITIVITY-TOLERANCE FOR BODY WEIGHT REGULATION






|   |   |                 |    |
|---|---|-----------------|----|
| SENSITIVE/TOLERANT TO FAT               |  SENSITIVE-LOW TOLERANCE | DIETARY INTAKE  |    |
| SENSITIVE/TOLERANT TO CARBOHYDRATE      |  MODERATE TOLERANCE      | FAT %           | 25 |
| PRONE TO OBESITY                        |  PRONE                   | CARBOHYDRATES % | 45 |
| EFFECT SPORT-EXERCISE IN WEIGHT CONTROL |  MODERATE              | PROTEIN %       | 30 |
| EFFECT OF DIET IN BODY WEIGHT CONTROL   |  MODERATE              | FIBERS g        | 25 |

GENETIC TRAITS REGULATE THE BODY WEIGHT CONTROL WITH THE METABOLIC BALANCE OF DIETARY FATS AND CARBOHYDRATES, THE PREDISPOSITION TO OBESITY, THE EFFICACY OF TRAINING EXERCISE AND DIET INTAKE. THE PANEL SHOWS FIVE CHARACTERS CONDITIONING THE WEIGHT CONTROL, EACH WITH DIFFERENT TOLERANCE RANGES ALSO CONDENSED IN COLORS (GREEN – GOOD PERFORMANCE, YELLOW-MID RATE, RED-LOW RATE). THE DIETARY COMPOSITION DOES NOT CONSIDER THE ACTUAL BMI.

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FABP2 AA-AG  
 PPARG GG-CG  
 ADRB2 AA-AG  
 ADRB3 TT  
 FTO TT

## SENSITIVITY-TOLERANCE FOR BODY WEIGHT REGULATION






|   |   |                 |    |
|---|---|-----------------|----|
| SENSITIVE/TOLERANT TO FAT               |  SENSITIVE-LOW TOLERANCE | DIETARY INTAKE  |    |
| SENSITIVE/TOLERANT TO CARBOHYDRATE      |  MODERATE TOLERANCE      | FAT %           | 25 |
| PRONE TO OBESITY                        |  NOT PRONE               | CARBOHYDRATES % | 45 |
| EFFECT SPORT-EXERCISE IN WEIGHT CONTROL |  MODERATE              | PROTEIN %       | 30 |
| EFFECT OF DIET IN BODY WEIGHT CONTROL   |  MODERATE              | FIBERS g        | 25 |

GENETIC TRAITS REGULATE THE BODY WEIGHT CONTROL WITH THE METABOLIC BALANCE OF DIETARY FATS AND CARBOHYDRATES, THE PREDISPOSITION TO OBESITY, THE EFFICACY OF TRAINING EXERCISE AND DIET INTAKE. THE PANEL SHOWS FIVE CHARACTERS CONDITIONING THE WEIGHT CONTROL, EACH WITH DIFFERENT TOLERANCE RANGES ALSO CONDENSED IN COLORS (GREEN – GOOD PERFORMANCE, YELLOW-MID RATE, RED-LOW RATE). THE DIETARY COMPOSITION DOES NOT CONSIDER THE ACTUAL BMI.

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FABP2 AA-AG  
 PPARG GG-CG  
 ADRB2 GG  
 ADRB3 AT-TT  
 FTO AA-AT

## SENSITIVITY-TOLERANCE FOR BODY WEIGHT REGULATION






|   |  |                 |    |
|---|--|-----------------|----|
| SENSITIVE/TOLERANT TO FAT               |  VERY SENSITIVE-LOW TOLERANCE | DIETARY INTAKE  |    |
| SENSITIVE/TOLERANT TO CARBOHYDRATE      |  MODERATE TOLERANCE           | FAT %           | 20 |
| PRONE TO OBESITY                        |  PRONE                        | CARBOHYDRATES % | 45 |
| EFFECT SPORT-EXERCISE IN WEIGHT CONTROL |  MODERATE                   | PROTEIN %       | 35 |
| EFFECT OF DIET IN BODY WEIGHT CONTROL   |  MODERATE                   | FIBERS g        | 30 |

GENETIC TRAITS REGULATE THE BODY WEIGHT CONTROL WITH THE METABOLIC BALANCE OF DIETARY FATS AND CARBOHYDRATES, THE PREDISPOSITION TO OBESITY, THE EFFICACY OF TRAINING EXERCISE AND DIET INTAKE. THE PANEL SHOWS FIVE CHARACTERS CONDITIONING THE WEIGHT CONTROL, EACH WITH DIFFERENT TOLERANCE RANGES ALSO CONDENSED IN COLORS (GREEN – GOOD PERFORMANCE, YELLOW-MID RATE, RED-LOW RATE). THE DIETARY COMPOSITION DOES NOT CONSIDER THE ACTUAL BMI.

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FABP2 AA-AG  
 PPARG GG-CG  
 ADRB2 GG  
 ADRB3 AT-TT  
 FTO TT

## SENSITIVITY-TOLERANCE FOR BODY WEIGHT REGULATION






|   |  |                 |    |
|---|--|-----------------|----|
| SENSITIVE/TOLERANT TO FAT               |  VERY SENSITIVE-LOW TOLERANCE | DIETARY INTAKE  |    |
| SENSITIVE/TOLERANT TO CARBOHYDRATE      |  MODERATE TOLERANCE           | FAT %           | 20 |
| PRONE TO OBESITY                        |  NOT PRONE                    | CARBOHYDRATES % | 45 |
| EFFECT SPORT-EXERCISE IN WEIGHT CONTROL |  MODERATE                   | PROTEIN %       | 35 |
| EFFECT OF DIET IN BODY WEIGHT CONTROL   |  MODERATE                   | FIBERS g        | 30 |

GENETIC TRAITS REGULATE THE BODY WEIGHT CONTROL WITH THE METABOLIC BALANCE OF DIETARY FATS AND CARBOHYDRATES, THE PREDISPOSITION TO OBESITY, THE EFFICACY OF TRAINING EXERCISE AND DIET INTAKE. THE PANEL SHOWS FIVE CHARACTERS CONDITIONING THE WEIGHT CONTROL, EACH WITH DIFFERENT TOLERANCE RANGES ALSO CONDENSED IN COLORS (GREEN – GOOD PERFORMANCE, YELLOW-MID RATE, RED-LOW RATE). THE DIETARY COMPOSITION DOES NOT CONSIDER THE ACTUAL BMI.

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FABP2 AA-AG  
 PPARG GG-CG  
 ADRB2 GG  
 ADRB3 TT  
 FTO AA-AT

## SENSITIVITY-TOLERANCE FOR BODY WEIGHT REGULATION






|   |   |                 |    |
|---|---|-----------------|----|
| SENSITIVE/TOLERANT TO FAT               |  SENSITIVE-LOW TOLERANCE | DIETARY INTAKE  |    |
| SENSITIVE/TOLERANT TO CARBOHYDRATE      |  MODERATE TOLERANCE      | FAT %           | 20 |
| PRONE TO OBESITY                        |  PRONE                   | CARBOHYDRATES % | 45 |
| EFFECT SPORT-EXERCISE IN WEIGHT CONTROL |  MODERATE              | PROTEIN %       | 35 |
| EFFECT OF DIET IN BODY WEIGHT CONTROL   |  MODERATE              | FIBERS g        | 30 |

GENETIC TRAITS REGULATE THE BODY WEIGHT CONTROL WITH THE METABOLIC BALANCE OF DIETARY FATS AND CARBOHYDRATES, THE PREDISPOSITION TO OBESITY, THE EFFICACY OF TRAINING EXERCISE AND DIET INTAKE. THE PANEL SHOWS FIVE CHARACTERS CONDITIONING THE WEIGHT CONTROL, EACH WITH DIFFERENT TOLERANCE RANGES ALSO CONDENSED IN COLORS (GREEN – GOOD PERFORMANCE, YELLOW-MID RATE, RED-LOW RATE). THE DIETARY COMPOSITION DOES NOT CONSIDER THE ACTUAL BMI.

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FABP2 AA-AG  
 PPARG GG-CG  
 ADRB2 GG  
 ADRB3 TT  
 FTO TT

## SENSITIVITY-TOLERANCE FOR BODY WEIGHT REGULATION


|   |   |                 |    |
|---|---|-----------------|----|
| SENSITIVE/TOLERANT TO FAT               |  SENSITIVE-LOW TOLERANCE | DIETARY INTAKE  |    |
| SENSITIVE/TOLERANT TO CARBOHYDRATE      |  MODERATE TOLERANCE      | FAT %           | 20 |
| PRONE TO OBESITY                        |  NOT PRONE               | CARBOHYDRATES % | 45 |
| EFFECT SPORT-EXERCISE IN WEIGHT CONTROL |  MODERATE              | PROTEIN %       | 35 |
| EFFECT OF DIET IN BODY WEIGHT CONTROL   |  MODERATE              | FIBERS g        | 30 |

GENETIC TRAITS REGULATE THE BODY WEIGHT CONTROL WITH THE METABOLIC BALANCE OF DIETARY FATS AND CARBOHYDRATES, THE PREDISPOSITION TO OBESITY, THE EFFICACY OF TRAINING EXERCISE AND DIET INTAKE. THE PANEL SHOWS FIVE CHARACTERS CONDITIONING THE WEIGHT CONTROL, EACH WITH DIFFERENT TOLERANCE RANGES ALSO CONDENSED IN COLORS (GREEN – GOOD PERFORMANCE, YELLOW-MID RATE, RED-LOW RATE). THE DIETARY COMPOSITION DOES NOT CONSIDER THE ACTUAL BMI.

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FABP2 GG  
 PPARG CC  
 ADRB2 AA-AG  
 ADRB3 AA-AT  
 FTO AA.AT

## SENSITIVITY-TOLERANCE FOR BODY WEIGHT REGULATION






|   |  |                 |    |
|---|--|-----------------|----|
| SENSITIVE/TOLERANT TO FAT               |  SENSITIVE-LOW TOLERANCE      | DIETARY INTAKE  |    |
| SENSITIVE/TOLERANT TO CARBOHYDRATE      |  VERY SENSITIVE-LOW TOLERANCE | FAT %           | 25 |
| PRONE TO OBESITY                        |  PRONE                        | CARBOHYDRATES % | 25 |
| EFFECT SPORT-EXERCISE IN WEIGHT CONTROL |  LOW                        | PROTEIN %       | 50 |
| EFFECT OF DIET IN BODY WEIGHT CONTROL   |  LOW                        | FIBERS g        | 35 |

GENETIC TRAITS REGULATE THE BODY WEIGHT CONTROL WITH THE METABOLIC BALANCE OF DIETARY FATS AND CARBOHYDRATES, THE PREDISPOSITION TO OBESITY, THE EFFICACY OF TRAINING EXERCISE AND DIET INTAKE. THE PANEL SHOWS FIVE CHARACTERS CONDITIONING THE WEIGHT CONTROL, EACH WITH DIFFERENT TOLERANCE RANGES ALSO CONDENSED IN COLORS (GREEN – GOOD PERFORMANCE, YELLOW-MID RATE, RED-LOW RATE). THE DIETARY COMPOSITION DOES NOT CONSIDER THE ACTUAL BMI.

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FABP2 GG  
 PPARG CC  
 ADRB2 AA-AG  
 ADRB3 AA-AT  
 FTO TT

## SENSITIVITY-TOLERANCE FOR BODY WEIGHT REGULATION

|   |  |                 |    |
|---|--|-----------------|----|
| SENSITIVE/TOLERANT TO FAT               |  SENSITIVE-LOW TOLERANCE      | DIETARY INTAKE  |    |
| SENSITIVE/TOLERANT TO CARBOHYDRATE      |  VERY SENSITIVE-LOW TOLERANCE | FAT %           | 25 |
| PRONE TO OBESITY                        |  NOT PRONE                    | CARBOHYDRATES % | 25 |
| EFFECT SPORT-EXERCISE IN WEIGHT CONTROL |  MODERATE                   | PROTEIN %       | 50 |
| EFFECT OF DIET IN BODY WEIGHT CONTROL   |  LOW                        | FIBERS g        | 35 |








GENETIC TRAITS REGULATE THE BODY WEIGHT CONTROL WITH THE METABOLIC BALANCE OF DIETARY FATS AND CARBOHYDRATES, THE PREDISPOSITION TO OBESITY, THE EFFICACY OF TRAINING EXERCISE AND DIET INTAKE. THE PANEL SHOWS FIVE CHARACTERS CONDITIONING THE WEIGHT CONTROL, EACH WITH DIFFERENT TOLERANCE RANGES ALSO CONDENSED IN COLORS (GREEN – GOOD PERFORMANCE, YELLOW-MID RATE, RED-LOW RATE). THE DIETARY COMPOSITION DOES NOT CONSIDER THE ACTUAL BMI.

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FABP2 GG  
 PPARG CC  
 ADRB2 AA-AG  
 ADRB3 TT  
 FTO AA-AT

## SENSITIVITY-TOLERANCE FOR BODY WEIGHT REGULATION

10

|   |  |                 |    |
|---|--|-----------------|----|
| SENSITIVE/TOLERANT TO FAT               |  MODERATE TOLERANCE           | DIETARY INTAKE  |    |
| SENSITIVE/TOLERANT TO CARBOHYDRATE      |  VERY SENSITIVE-LOW TOLERANCE | FAT %           | 30 |
| PRONE TO OBESITY                        |  PRONE                        | CARBOHYDRATES % | 25 |
| EFFECT SPORT-EXERCISE IN WEIGHT CONTROL |  MODERATE                   | PROTEIN %       | 45 |
| EFFECT OF DIET IN BODY WEIGHT CONTROL   |  LOW                        | FIBERS g        | 35 |






GENETIC TRAITS REGULATE THE BODY WEIGHT CONTROL WITH THE METABOLIC BALANCE OF DIETARY FATS AND CARBOHYDRATES, THE PREDISPOSITION TO OBESITY, THE EFFICACY OF TRAINING EXERCISE AND DIET INTAKE. THE PANEL SHOWS FIVE CHARACTERS CONDITIONING THE WEIGHT CONTROL, EACH WITH DIFFERENT TOLERANCE RANGES ALSO CONDENSED IN COLORS (GREEN – GOOD PERFORMANCE, YELLOW-MID RATE, RED-LOW RATE). THE DIETARY COMPOSITION DOES NOT CONSIDER THE ACTUAL BMI.

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FABP2 GG  
 PPARG CC  
 ADRB2 AA-AG  
 ADRB3 TT  
 FTO TT

## SENSITIVITY-TOLERANCE FOR BODY WEIGHT REGULATION

10






|   |  |                 |    |
|---|--|-----------------|----|
| SENSITIVE/TOLERANT TO FAT               |  MODERATE TOLERANCE           | DIETARY INTAKE  |    |
| SENSITIVE/TOLERANT TO CARBOHYDRATE      |  VERY SENSITIVE-LOW TOLERANCE | FAT %           | 30 |
| PRONE TO OBESITY                        |  NOT PRONE                    | CARBOHYDRATES % | 25 |
| EFFECT SPORT-EXERCISE IN WEIGHT CONTROL |  MODERATE                   | PROTEIN %       | 45 |
| EFFECT OF DIET IN BODY WEIGHT CONTROL   |  MODERATE                   | FIBERS g        | 35 |

GENETIC TRAITS REGULATE THE BODY WEIGHT CONTROL WITH THE METABOLIC BALANCE OF DIETARY FATS AND CARBOHYDRATES, THE PREDISPOSITION TO OBESITY, THE EFFICACY OF TRAINING EXERCISE AND DIET INTAKE. THE PANEL SHOWS FIVE CHARACTERS CONDITIONING THE WEIGHT CONTROL, EACH WITH DIFFERENT TOLERANCE RANGES ALSO CONDENSED IN COLORS (GREEN – GOOD PERFORMANCE, YELLOW-MID RATE, RED-LOW RATE). THE DIETARY COMPOSITION DOES NOT CONSIDER THE ACTUAL BMI.

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FABP2 GG  
 PPARG CC  
 ADRB2 GG  
 ADRB3 AA-AT  
 FTO AA-AT

## SENSITIVITY-TOLERANCE FOR BODY WEIGHT REGULATION






|   |   |                 |    |
|---|---|-----------------|----|
| SENSITIVE/TOLERANT TO FAT               |  SENSITIVE-LOW TOLERANCE | DIETARY INTAKE  |    |
| SENSITIVE/TOLERANT TO CARBOHYDRATE      |  MODERATE TOLERANCE      | FAT %           | 25 |
| PRONE TO OBESITY                        |  PRONE                   | CARBOHYDRATES % | 45 |
| EFFECT SPORT-EXERCISE IN WEIGHT CONTROL |  MODERATE              | PROTEIN %       | 30 |
| EFFECT OF DIET IN BODY WEIGHT CONTROL   |  LOW                   | FIBERS g        | 35 |

GENETIC TRAITS REGULATE THE BODY WEIGHT CONTROL WITH THE METABOLIC BALANCE OF DIETARY FATS AND CARBOHYDRATES, THE PREDISPOSITION TO OBESITY, THE EFFICACY OF TRAINING EXERCISE AND DIET INTAKE. THE PANEL SHOWS FIVE CHARACTERS CONDITIONING THE WEIGHT CONTROL, EACH WITH DIFFERENT TOLERANCE RANGES ALSO CONDENSED IN COLORS (GREEN – GOOD PERFORMANCE, YELLOW-MID RATE, RED-LOW RATE). THE DIETARY COMPOSITION DOES NOT CONSIDER THE ACTUAL BMI.

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FABP2 GG  
 PPARG CC  
 ADRB2 GG  
 ADRB3 AA-AT  
 FTO TT

## SENSITIVITY-TOLERANCE FOR BODY WEIGHT REGULATION






|   |   |                 |    |
|---|---|-----------------|----|
| SENSITIVE/TOLERANT TO FAT               |  SENSITIVE-LOW TOLERANCE | DIETARY INTAKE  |    |
| SENSITIVE/TOLERANT TO CARBOHYDRATE      |  MODERATE TOLERANCE      | FAT %           | 25 |
| PRONE TO OBESITY                        |  NOT PRONE               | CARBOHYDRATES % | 45 |
| EFFECT SPORT-EXERCISE IN WEIGHT CONTROL |  MODERATE              | PROTEIN %       | 30 |
| EFFECT OF DIET IN BODY WEIGHT CONTROL   |  LOW                   | FIBERS g        | 35 |

GENETIC TRAITS REGULATE THE BODY WEIGHT CONTROL WITH THE METABOLIC BALANCE OF DIETARY FATS AND CARBOHYDRATES, THE PREDISPOSITION TO OBESITY, THE EFFICACY OF TRAINING EXERCISE AND DIET INTAKE. THE PANEL SHOWS FIVE CHARACTERS CONDITIONING THE WEIGHT CONTROL, EACH WITH DIFFERENT TOLERANCE RANGES ALSO CONDENSED IN COLORS (GREEN – GOOD PERFORMANCE, YELLOW-MID RATE, RED-LOW RATE). THE DIETARY COMPOSITION DOES NOT CONSIDER THE ACTUAL BMI.

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FABP2 GG  
 PPARG CC  
 ADRB2 GG  
 ADRB3 TT  
 FTO AA-AT

## SENSITIVITY-TOLERANCE FOR BODY WEIGHT REGULATION






|   |   |                 |    |
|---|---|-----------------|----|
| SENSITIVE/TOLERANT TO FAT               |  MODERATE TOLERANCE      | DIETARY INTAKE  |    |
| SENSITIVE/TOLERANT TO CARBOHYDRATE      |  SENSITIVE-LOW TOLERANCE | FAT %           | 30 |
| PRONE TO OBESITY                        |  PRONE                   | CARBOHYDRATES % | 25 |
| EFFECT SPORT-EXERCISE IN WEIGHT CONTROL |  HIGH                  | PROTEIN %       | 45 |
| EFFECT OF DIET IN BODY WEIGHT CONTROL   |  MODERATE              | FIBERS g        | 35 |

GENETIC TRAITS REGULATE THE BODY WEIGHT CONTROL WITH THE METABOLIC BALANCE OF DIETARY FATS AND CARBOHYDRATES, THE PREDISPOSITION TO OBESITY, THE EFFICACY OF TRAINING EXERCISE AND DIET INTAKE. THE PANEL SHOWS FIVE CHARACTERS CONDITIONING THE WEIGHT CONTROL, EACH WITH DIFFERENT TOLERANCE RANGES ALSO CONDENSED IN COLORS (GREEN – GOOD PERFORMANCE, YELLOW-MID RATE, RED-LOW RATE). THE DIETARY COMPOSITION DOES NOT CONSIDER THE ACTUAL BMI.

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FABP2 GG  
 PPARG CC  
 ADRB2 GG  
 ADRB3 TT  
 FTO TT

## SENSITIVITY-TOLERANCE FOR BODY WEIGHT REGULATION






|   |   |                 |    |
|---|---|-----------------|----|
| SENSITIVE/TOLERANT TO FAT               |  MODERATE TOLERANCE      | DIETARY INTAKE  |    |
| SENSITIVE/TOLERANT TO CARBOHYDRATE      |  SENSITIVE-LOW TOLERANCE | FAT %           | 30 |
| PRONE TO OBESITY                        |  NOT PRONE               | CARBOHYDRATES % | 25 |
| EFFECT SPORT-EXERCISE IN WEIGHT CONTROL |  MODERATE              | PROTEIN %       | 45 |
| EFFECT OF DIET IN BODY WEIGHT CONTROL   |  MODERATE              | FIBERS g        | 35 |

GENETIC TRAITS REGULATE THE BODY WEIGHT CONTROL WITH THE METABOLIC BALANCE OF DIETARY FATS AND CARBOHYDRATES, THE PREDISPOSITION TO OBESITY, THE EFFICACY OF TRAINING EXERCISE AND DIET INTAKE. THE PANEL SHOWS FIVE CHARACTERS CONDITIONING THE WEIGHT CONTROL, EACH WITH DIFFERENT TOLERANCE RANGES ALSO CONDENSED IN COLORS (GREEN – GOOD PERFORMANCE, YELLOW-MID RATE, RED-LOW RATE). THE DIETARY COMPOSITION DOES NOT CONSIDER THE ACTUAL BMI.

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FABP2 AA-AG  
 PPARG CC  
 ADRB2 GG  
 ADRB3 AA-AT  
 FTO AA-AT

## SENSITIVITY-TOLERANCE FOR BODY WEIGHT REGULATION



|   |  |                 |    |
|---|--|-----------------|----|
| SENSITIVE/TOLERANT TO FAT               |  VERY SENSITIVE-LOW TOLERANCE | DIETARY INTAKE  |    |
| SENSITIVE/TOLERANT TO CARBOHYDRATE      |  SENSITIVE-LOW TOLERANCE      | FAT %           | 20 |
| PRONE TO OBESITY                        |  PRONE                        | CARBOHYDRATES % | 35 |
| EFFECT SPORT-EXERCISE IN WEIGHT CONTROL |  MODERATE                   | PROTEIN %       | 45 |
| EFFECT OF DIET IN BODY WEIGHT CONTROL   |  LOW                        | FIBERS g        | 35 |

GENETIC TRAITS REGULATE THE BODY WEIGHT CONTROL WITH THE METABOLIC BALANCE OF DIETARY FATS AND CARBOHYDRATES, THE PREDISPOSITION TO OBESITY, THE EFFICACY OF TRAINING EXERCISE AND DIET INTAKE. THE PANEL SHOWS FIVE CHARACTERS CONDITIONING THE WEIGHT CONTROL, EACH WITH DIFFERENT TOLERANCE RANGES ALSO CONDENSED IN COLORS (GREEN – GOOD PERFORMANCE, YELLOW-MID RATE, RED-LOW RATE). THE DIETARY COMPOSITION DOES NOT CONSIDER THE ACTUAL BMI.

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FABP2 AA-AG  
 PPARG CC  
 ADRB2 GG  
 ADRB3 AA-AT  
 FTO TT

## SENSITIVITY-TOLERANCE FOR BODY WEIGHT REGULATION

|   |  |                 |    |
|---|--|-----------------|----|
| SENSITIVE/TOLERANT TO FAT               |  VERY SENSITIVE-LOW TOLERANCE | DIETARY INTAKE  |    |
| SENSITIVE/TOLERANT TO CARBOHYDRATE      |  SENSITIVE-LOW TOLERANCE      | FAT %           | 20 |
| PRONE TO OBESITY                        |  NOT PRONE                    | CARBOHYDRATES % | 35 |
| EFFECT SPORT-EXERCISE IN WEIGHT CONTROL |  LOW                        | PROTEIN %       | 45 |
| EFFECT OF DIET IN BODY WEIGHT CONTROL   |  LOW                        | FIBERS g        | 35 |








GENETIC TRAITS REGULATE THE BODY WEIGHT CONTROL WITH THE METABOLIC BALANCE OF DIETARY FATS AND CARBOHYDRATES, THE PREDISPOSITION TO OBESITY, THE EFFICACY OF TRAINING EXERCISE AND DIET INTAKE. THE PANEL SHOWS FIVE CHARACTERS CONDITIONING THE WEIGHT CONTROL, EACH WITH DIFFERENT TOLERANCE RANGES ALSO CONDENSED IN COLORS (GREEN – GOOD PERFORMANCE, YELLOW-MID RATE, RED-LOW RATE). THE DIETARY COMPOSITION DOES NOT CONSIDER THE ACTUAL BMI.

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FABP2 AA-AG  
 PPARG CC  
 ADRB2 GG  
 ADRB3 TT  
 FTO AA-AT

## SENSITIVITY-TOLERANCE FOR BODY WEIGHT REGULATION






|   |   |                 |    |
|---|---|-----------------|----|
| SENSITIVE/TOLERANT TO FAT               |  SENSITIVE-LOW TOLERANCE | DIETARY INTAKE  |    |
| SENSITIVE/TOLERANT TO CARBOHYDRATE      |  SENSITIVE-LOW TOLERANCE | FAT %           | 25 |
| PRONE TO OBESITY                        |  PRONE                   | CARBOHYDRATES % | 30 |
| EFFECT SPORT-EXERCISE IN WEIGHT CONTROL |  MODERATE              | PROTEIN %       | 45 |
| EFFECT OF DIET IN BODY WEIGHT CONTROL   |  MODERATE              | FIBERS g        | 35 |

GENETIC TRAITS REGULATE THE BODY WEIGHT CONTROL WITH THE METABOLIC BALANCE OF DIETARY FATS AND CARBOHYDRATES, THE PREDISPOSITION TO OBESITY, THE EFFICACY OF TRAINING EXERCISE AND DIET INTAKE. THE PANEL SHOWS FIVE CHARACTERS CONDITIONING THE WEIGHT CONTROL, EACH WITH DIFFERENT TOLERANCE RANGES ALSO CONDENSED IN COLORS (GREEN – GOOD PERFORMANCE, YELLOW-MID RATE, RED-LOW RATE). THE DIETARY COMPOSITION DOES NOT CONSIDER THE ACTUAL BMI.

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FABP2 AA-AG  
 PPARG CC  
 ADRB2 AA-AG  
 ADRB3 TT  
 FTO AA-AT

## SENSITIVITY-TOLERANCE FOR BODY WEIGHT REGULATION






|   |   |                 |    |
|---|---|-----------------|----|
| SENSITIVE/TOLERANT TO FAT               |  SENSITIVE-LOW TOLERANCE | DIETARY INTAKE  |    |
| SENSITIVE/TOLERANT TO CARBOHYDRATE      |  SENSITIVE-LOW TOLERANCE | FAT %           | 25 |
| PRONE TO OBESITY                        |  PRONE                   | CARBOHYDRATES % | 30 |
| EFFECT SPORT-EXERCISE IN WEIGHT CONTROL |  MODERATE              | PROTEIN %       | 45 |
| EFFECT OF DIET IN BODY WEIGHT CONTROL   |  MODERATE              | FIBERS g        | 35 |

GENETIC TRAITS REGULATE THE BODY WEIGHT CONTROL WITH THE METABOLIC BALANCE OF DIETARY FATS AND CARBOHYDRATES, THE PREDISPOSITION TO OBESITY, THE EFFICACY OF TRAINING EXERCISE AND DIET INTAKE. THE PANEL SHOWS FIVE CHARACTERS CONDITIONING THE WEIGHT CONTROL, EACH WITH DIFFERENT TOLERANCE RANGES ALSO CONDENSED IN COLORS (GREEN – GOOD PERFORMANCE, YELLOW-MID RATE, RED-LOW RATE). THE DIETARY COMPOSITION DOES NOT CONSIDER THE ACTUAL BMI.

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FABP2 AA-AG  
 PPARG CC  
 ADRB2 AA-AG  
 ADRB3 TT  
 FTO TT

## SENSITIVITY-TOLERANCE FOR BODY WEIGHT REGULATION






|   |   |                 |    |
|---|---|-----------------|----|
| SENSITIVE/TOLERANT TO FAT               |  SENSITIVE-LOW TOLERANCE | DIETARY INTAKE  |    |
| SENSITIVE/TOLERANT TO CARBOHYDRATE      |  SENSITIVE-LOW TOLERANCE | FAT %           | 25 |
| PRONE TO OBESITY                        |  NOT PRONE               | CARBOHYDRATES % | 30 |
| EFFECT SPORT-EXERCISE IN WEIGHT CONTROL |  LOW                   | PROTEIN %       | 45 |
| EFFECT OF DIET IN BODY WEIGHT CONTROL   |  MODERATE              | FIBERS g        | 35 |

GENETIC TRAITS REGULATE THE BODY WEIGHT CONTROL WITH THE METABOLIC BALANCE OF DIETARY FATS AND CARBOHYDRATES, THE PREDISPOSITION TO OBESITY, THE EFFICACY OF TRAINING EXERCISE AND DIET INTAKE. THE PANEL SHOWS FIVE CHARACTERS CONDITIONING THE WEIGHT CONTROL, EACH WITH DIFFERENT TOLERANCE RANGES ALSO CONDENSED IN COLORS (GREEN – GOOD PERFORMANCE, YELLOW-MID RATE, RED-LOW RATE). THE DIETARY COMPOSITION DOES NOT CONSIDER THE ACTUAL BMI.

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FABP2 AA-AG  
 PPARG CC  
 ADRB2 AA-AG  
 ADRB3 AA-AT  
 FTO AA-AT

**SENSITIVITY-TOLERANCE FOR BODY WEIGHT REGULATION**






|  |   |                 |           |
|--|---|-----------------|-----------|
| <b>SENSITIVE/TOLERANT TO FAT</b>               |  <b>VERY SENSITIVE-LOW TOLERANCE</b> | DIETARY INTAKE  |           |
| <b>SENSITIVE/TOLERANT TO CARBOHYDRATE</b>      |  <b>VERY SENSITIVE-LOW TOLERANCE</b> | FAT %           | <b>20</b> |
| <b>PRONE TO OBESITY</b>                        |  <b>PRONE</b>                        | CARBOHYDRATES % | <b>25</b> |
| <b>EFFECT SPORT-EXERCISE IN WEIGHT CONTROL</b> |  <b>LOW</b>                        | PROTEIN %       | <b>55</b> |
| <b>EFFECT OF DIET IN BODY WEIGHT CONTROL</b>   |  <b>LOW</b>                        | FIBERS g        | <b>35</b> |

GENETIC TRAITS REGULATE THE BODY WEIGHT CONTROL WITH THE METABOLIC BALANCE OF DIETARY FATS AND CARBOHYDRATES, THE PREDISPOSITION TO OBESITY, THE EFFICACY OF TRAINING EXERCISE AND DIET INTAKE. THE PANEL SHOWS FIVE CHARACTERS CONDITIONING THE WEIGHT CONTROL, EACH WITH DIFFERENT TOLERANCE RANGES ALSO CONDENSED IN COLORS (GREEN – GOOD PERFORMANCE, YELLOW-MID RATE, RED-LOW RATE). THE DIETARY COMPOSITION DOES NOT CONSIDER THE ACTUAL BMI.

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FABP2 AA-AG  
 PPARG CC  
 ADRB2 AA-AG  
 ADRB3 AA-AT  
 FTO TT

## SENSITIVITY-TOLERANCE FOR BODY WEIGHT REGULATION

|  |   |                 |           |
|--|---|-----------------|-----------|
| <b>SENSITIVE/TOLERANT TO FAT</b>               |  <b>VERY SENSITIVE-LOW TOLERANCE</b> | DIETARY INTAKE  |           |
| <b>SENSITIVE/TOLERANT TO CARBOHYDRATE</b>      |  <b>VERY SENSITIVE-LOW TOLERANCE</b> | FAT %           | <b>20</b> |
| <b>PRONE TO OBESITY</b>                        |  <b>NOT PRONE</b>                    | CARBOHYDRATES % | <b>25</b> |
| <b>EFFECT SPORT-EXERCISE IN WEIGHT CONTROL</b> |  <b>LOW</b>                        | PROTEIN %       | <b>55</b> |
| <b>EFFECT OF DIET IN BODY WEIGHT CONTROL</b>   |  <b>LOW</b>                        | FIBERS g        | <b>35</b> |