



Fagron NutriGen™

Professional nutrigenomic advice



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Body weight is controlled by interactions between the genetic profile and environmental and lifestyle factors, such as physical inactivity, stress or medication, among others.¹

Genetics

Single nucleotide polymorphisms (SNPs) are the most frequent type of DNA variation found in humans. Characterization of some SNPs may help to predict the risk of developing certain diseases and an individual's response to certain foods and drugs.

"Genetic factors determine between 40% - 70% of an individual's BMI." ²



Fagron NutriGen™

Fagron NutriGen™ is an innovative genetic test for personalized weight loss planning.

- **The most complete nutrigenetic analysis in the market**
384 genetic variations related to weight loss, response to exercise, intolerances and nutritional needs, among others, are analyzed.
- **An exclusive tool for healthcare professionals**
Fagron NutriGen™ is a unique tool that unravels the patient's nutrition metabolism, only available to the patient via healthcare professionals.
- **Personalized diet plan**
Our algorithm proposes a dietary plan and a 3-phase supplementation program based on the patient's genetic profile and anamnesis.
- **State-of-the-art technology**
Genetic test based on DNA microarray technology. More than 99% of reproducibility and sensibility.

What is evaluated?

Fagron NutriGen™ analyzes both genetic factors and other relevant characteristics - extrinsic factors - obtained through an anamnesis of the patient. This process provides a full understanding about the underlying factors related with weight gain.

A personalized diet plan improves weight loss efficacy

Current research shows that patients are **more motivated** to follow a healthier diet and maintain a healthier lifestyle when the dietary advice provided is personalized and based on their genetic profile.^{1,3}



Genetic Factors

Fagron NutriGen™ analyzes 3 polymorphisms within 128 SNPs, resulting in 384 genetic variations - the most relevant variations when personalizing a diet plan.

Patient anamnesis

Biochemical parameters, pathologies, intolerances, physical activity and habits are also taken into consideration through a questionnaire.

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Categories analyzed

The genetic variations analyzed with Fagron NutriGen™ are associated with 8 different main categories.

- 1 Morphological genetics in overweight predisposition
- 2 Behavioural genetics in food intake
- 3 Efficacy of exercise
- 4 Fat metabolism
- 5 Carbohydrate metabolism
- 6 Lipid metabolism
- 7 Glucose metabolism
- 8 Flavour sensitivities
- 9 Detoxification imbalances
- 10 Supplementation
- 11 Intolerance
- 12 Vitamin deficiency risk
- 13 Matching Diet Type
- 14 Inflammation
- 15 Hormones

Personalized diet plan

Diet type

An intensive study of genetic biomarkers related to the diet type efficacy is performed in order to determine the percentage of expected efficacy (low-fats, low-carbs or low-calories).

Dose adjustment

Suggestion of daily dosage intake from more than 850 foods and beverages.

Intolerances

Specific foods are removed from the diet plan if intolerance risk is detected.



The suggested diet plan has in consideration the predisposition to:

Obesity and increased BMI

Fat metabolism and lipidic profile

Digest Carbohydrates

Type 2 diabetes risk

Cholesterol dysregulation

Celiac disease risk

Vitamins metabolic deficit

Lactose and fructose intolerance

Micro and macronutrients personal requirements

Among others

Fagron NutriGen™ procedure

Kit content:

- 1x buccal swab
- 2x informed consent forms
- 1x instructions leaflet
- ID label stickers

1. Collect the DNA sample according to the instructions.

2. Register the kit and perform the patient questionnaire online (www.fagrongenomics.com).

3. Shipment of the samples to Fagron Genomics laboratory.

4. Results are provided in 4-5 weeks.

Fagron NutriGen™ report

The Fagron NutriGen™ results are shared only with the healthcare professional through the Fagron Genomics online platform.

The Fagron NutriGen™ report includes:



Summary of patient characteristics



Full genetic analysis and explanation



Suggested 3-phase personalized supplementation plan

References

1. Goordazi MO. Lancet Diabetes Endocrinol. 2018;6(3):223-236.
2. Maes HH, et al. Behav Genet. 1997;27: 325-51.
3. Ordoas JM, et al. BMJ. 2018;13;361:bmj.k2173.

LEGAL DISCLAIMER

Fagron Genomics, S.L.U. carries out genetic tests upon request by healthcare professionals, in relation to biological samples from patients obtained by the healthcare professional. Our tests do not replace a medical consultation, nor do they make up a diagnostic or treatment, nor should they be interpreted this way. Only healthcare professionals can interpret the results of said tests, based on their knowledge of the clinical records of the patients and other relevant factors and, under their responsibility, give a diagnostic or prescribe treatment to the patient. We decline all responsibility derived from the use and interpretation of the results of our tests by the solicitant healthcare professional.

Fagron Genomics, S.L.U. expressly reserves any legal actions in case of an inappropriate, negligent or incorrect use or interpretation of the results of our tests. It is the responsibility of the healthcare professional who requests a test to guarantee to the patient the appropriate genetic advice as foreseen by Law 14/2007, of 3rd July, of biomedical research. As Fagron Genomics, S.L.U. does not have access to the personal identifiable information about the patient from whom the sample comes, it is the responsibility of the requesting healthcare professional to comply with the applicable data protection Laws and regulations.

