

NutriGen™

Personalizing diet, wellness, and weight loss planning



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# Professional nutrigenomic advice

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

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



"Genetic factors determine between 40% - 70% of an individual's BML" <sup>2</sup>

### **GX Sciences NutriGen™**

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

The most complete nutrigenetic analysis in the market

363 (3x121) genetic variations related to weight loss, response to exercise, intolerances and nutritional needs, among others, are analyzed.

Personalized diet plan

Our algorithm proposes a dietary plan and a 3-phase supplementation program based on the patient's genetic profile and medical history.

State-of-the-art technology
 Genetic test based on DNA OpenArray technology.
 More than 99% of reproducibility and sensitivity.

#### What is evaluated?

NutriGen™ analyzes both genetic factors and other relevant characteristics - extrinsic factors - obtained through a medical history of the patient. This process provides a full understanding about the underlaying factors related to 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. <sup>1,3</sup>



#### **Genetic Factors**

NutriGen<sup>™</sup> analyzes 3 polymorphisms within 121 SNPs, resulting in 363 genetic variations - the most relevant variations when personalizing a diet plan.

#### Patient medical history

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

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# Personalized weight loss planning

## Categories analyzed

The genetic variations analyzed with NutriGen™ are associated with 15 main categories.

- 1 Morphological genetics in overweight predisposition
- Behavioral genetics in food intake
- 3 Efficacy of exercise
- 4 Fat metabolism
- 5 Carbohydrate metabolism
- 6 Lipid metabolism
- Glucose metabolism

- 8 Flavor 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 (lowfats, low-carbs or low-calories).

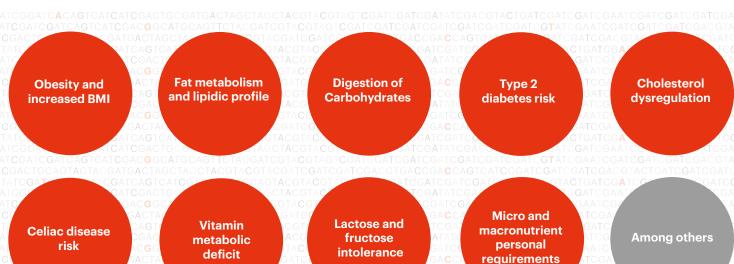
#### Dose adjustment

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

#### **Intolerances**

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

## The suggested diet plan considers predispositions to:



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## NutriGen<sup>™</sup> procedure

#### Kit contents:

- 1x requisition form
- 1x instructions card
- 1x buccal swab
- 1x ID label sticker
- 1x containment bag
- 1x return shipping bag

- **1.** Collect the DNA sample (cheek swab) according to the instructions.
- **2.** Complete the requisition form and patient questionnaire. These items must accompany the sample.
- **3.** Ship the sample and forms to the GX Sciences laboratory.
- **4.** Results are provided via online portal typically in 5-7 business days after receipt of the sample.



# **NutriGen<sup>™</sup> report**

Results are shared with the healthcare professional through the GX Sciences online portal.

### The GX Sciences NutriGen™ report includes:



Summary of patient characteristics



Full genetic analysis and explanation



Suggested 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. Ordovas JM, et al. BMJ. 2018;13;361:bmj.k2173.

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