

VITAMIN D METABOLISM

sample report



WHAT THE REPORT INCLUDES

- Detailed EXPLANATION of the test performed and recommendations to be followed;
- SUMMARY TABLE showing the metabolic areas investigated and the results obtained from the DNA analysis, in order to have a quick overview of one's general situation and to check for compromised situations;
- BIBLIOGRAPHY providing scientific references for the test.

COLOURS USED



Green indicates that the variants identified in the analysis do not unfavourably alter the enzymatic activity of the proteins they encode and/or the risk associated with certain diseases.



Orange indicates that the variants identified in the analysis slightly unfavourably alter enzyme activity and/or the risk associated with certain disorders or diseases.



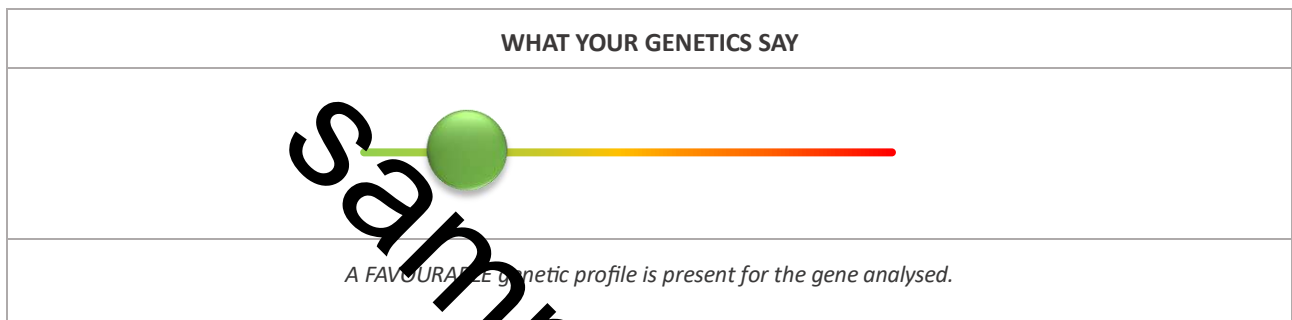
Red indicates that the variants identified in the analysis alter enzyme activity in a particularly unfavourable way, resulting in an increased risk of developing certain disorders or associated diseases.

The results shown, as well as the considerations and explanations contained in the following pages of this booklet, should not be regarded as a medical diagnosis. It is important to bear in mind that genetic information is only a part of the total information needed to gain a complete picture of a person's state of health, and the data reported here is therefore a tool available to the treating physician to formulate a correct assessment of the patient's physiological state and suggest an appropriate personalised treatment.

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Test result:

| Gentras ID | Gene | Allelic variants | Genotype | | Predisposition |
|------------|------|------------------|----------|---|----------------|
| GTS004 | DBP | A | A | A | FAVOURABLE |
| | | C | | | |



The genetic analysis involved the following gene:

-Transporter Vitamin D (DBP)

Vitamin D transporter levels are directly related to its serum levels and utilisation of the active form of the vitamin. Most of the vitamin D circulating in the body is synthesised in the skin following exposure to UVB radiation. The indication of susceptibility is based on scientific evidence that associates the unfavourable allelic variants detected by the test with an increased susceptibility of the subject compared to the general population. This increase in susceptibility is a probabilistic measure, because it does not take into account the subject's lifestyle but only their genetic make-up. It is therefore not a diagnosis, and therefore does not imply a cause-and-effect relationship.

What is Vitamin D

Vitamin D is an essential vitamin that performs many important health functions, especially related to the well-being of the bones and immune system. Unlike other vitamins, vitamin D can be produced by the body when the skin is exposed to sunlight, but it can also be obtained through diet and supplements.

The main functions of vitamin D are:

- Calcium absorption and bone health

Vitamin D helps absorb calcium and phosphorus from the gut, both of which are essential for maintaining strong bones and teeth. An adequate amount of vitamin D is essential to prevent osteoporosis and rickets. It promotes bone mineralisation and bone growth. Without sufficient vitamin D, bones can become thin, brittle or deformed.

- Function of the immune system

Vitamin D helps regulate the immune system, improving the body's ability to fight infections and reducing the risk of developing autoimmune diseases.

- Mood regulation

Adequate levels of vitamin D have been linked to improved mood and the prevention of disorders such as depression, especially during the winter months when exposure to the sun is reduced.

- Prevention of chronic diseases

Studies suggest that vitamin D may help reduce the risk of developing chronic diseases, such as diabetes, certain cardiovascular diseases and certain cancers

Vitamin D metabolism

Vitamin D metabolism is the process by which the body activates and utilises vitamin D to maintain various biological processes, particularly those related to bone health and calcium regulation.

The test then allows the following:

- Assessing absorption by the body

Some people have genetic variants that prevent efficient absorption of vitamin D through the skin (from the sun) or through food. The test helps you understand this.

- Identifying the risk of shortage

If your body does not metabolise vitamin D properly, you may be at risk of a deficiency, even if you eat a balanced diet or expose yourself to the sun regularly. Vitamin D deficiency can lead to problems such as brittle bones (osteoporosis or rickets) and a weak immune system.

- Customising supplementation

Based on the test results, you can work out whether you need to take vitamin D supplements, and in what dosage. Some people, due to genetic variants, may need higher doses than others.

- Preventing associated diseases

Inefficient metabolism of vitamin D has been linked to an increased risk of developing cardiovascular diseases, immune system problems, depression and certain autoimmune diseases. Knowing how your body handles vitamin D can help prevent these conditions.

- Optimising general health

Vitamin D is essential for bone health, muscle function, the immune system and general well-being. Testing your vitamin D metabolism allows you to optimise your level to improve these functions.

Countermeasures to be considered if the variant is unfavourable

Vitamin D is essential for bone health, the immune system and general well-being. Getting enough vitamin D through the sun, diet or supplements is essential to keep the body in balance and prevent many diseases.

Sources of vitamin D include:

- Sun exposure (The main source of vitamin D is skin synthesis, which occurs when the skin is exposed to the sun's UVB rays. However, the amount of vitamin D produced depends on factors such as geographical location, skin colour and duration of exposure).
- Particular foods such as:
 - Oily fish (salmon, tuna, mackerel)
 - Cod liver oil
 - Fortified milk and cereals
 - Eggs (especially the yolk)
- Supplements D2 (ergocalciferol) or D3 (cholecalciferol)

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