

TEST RESULTS:



Cod. ID: 123456

CCV: 574

Date: 01/01/2013

Patient: Rossi Mario

Rapport de:

NatrixLab

Via Cavallotti, 16

42122 Reggio Emilia

Aut.n. 67 del 26.01.10

Direttore Sanitario

Dott. Michele Cataldo

www.natrixlab.it

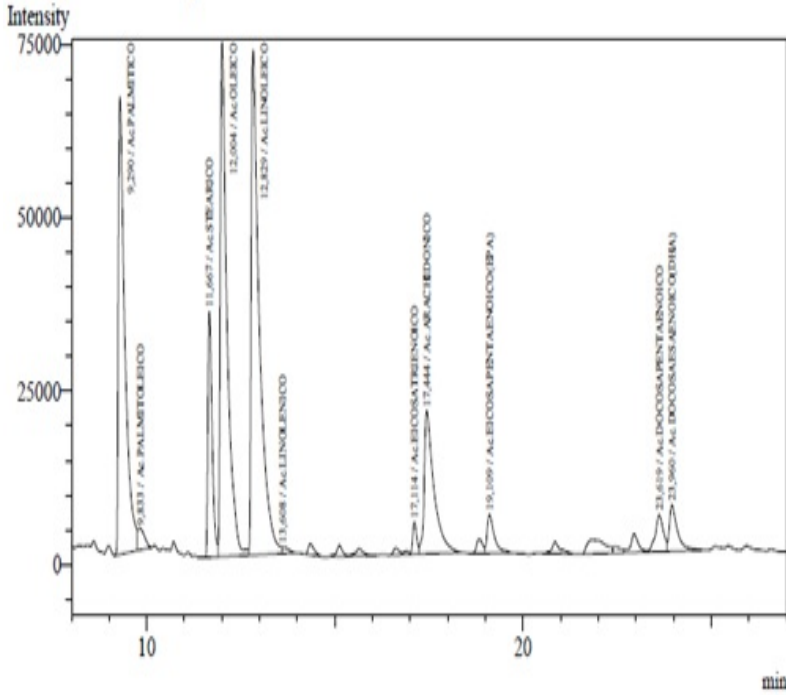
THE ZONE PLUS TEST
Evaluation of fatty acids Omega 6 / Omega 3
AA / EPA Ratio

Glycemia (Blood Sugar Level)
Insulin levels
HOMA Index (Homeostasis Model Assessment)

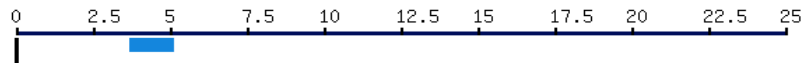
Dott.ssa Ausilia Rausa

A handwritten signature in black ink, appearing to read "ARausa", is positioned below the printed name.

Campione: PLASMA 79846 - Data: 05/12/2013

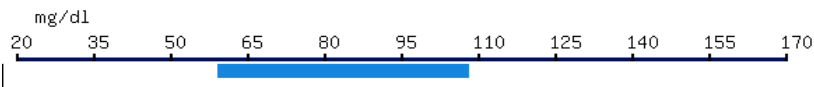


AA/EPA ratio



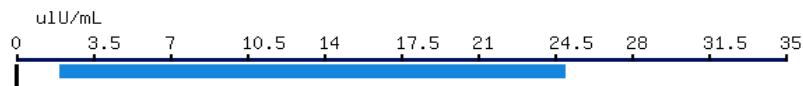
(3.7 - 5.1)

Glycemia



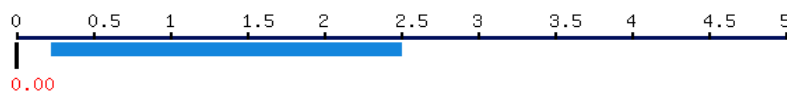
mg/dl
(59.46 - 108.11)

Insulin glycation



uIU/mL
(2 - 25)

HOMA index



0.00
(0.23 - 2.50)

ATTACHMENT:

Useful remarks for patient and doctor, to be associated to the analytical results. Your doctor should interpret this report.

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THE ZONE PLUS TEST

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OMEGA-6 AND OMEGA-3 FATTY ACIDS

FOODS RICH IN OMEGA-3

MONITORING BLOOD SUGAR AND INSULIN

REPEATING THE TEST

IMPORTANT

OMEGA-6 AND OMEGA-3 FATTY ACIDS

Fats are not only those visible in storage, which sometimes to a lesser or greater extent may create aesthetic problems. Hidden within each cell in the body are other fats that perform important functions: what is more, they are precursors of potent local hormones, real *traffic wardens* who control the various metabolic pathways and prevent dangerous *traffic jams*.

Among the fatty acids of the polyunsaturated family, the most important are *arachidonic acid (AA)* and *eicosapentaenoic acid (EPA)*, which must be present in precise ratios. The first comes from the Omega-6 family while the second comes from Omega-3. The ideal values within which the ratio of these two fatty acids (AA / EPA) should be contained varies between **1.5** and **5.0** in clinically healthy subjects who are taking Omega-3. It is important to remember that in Italy, as a result of our diet, the ratio in a clinically healthy patient may even reach **15**.

This ratio is indicative of a correct balance in the body of fatty acids and hormones deriving from them called *eicosanoids*. They are involved in numerous phenomena, among which the most important is inflammatory.

A higher proportion of omega-3 (in respect to omega-6) leads to:

- greater efficiency in the immune system
- inhibition of inflammatory processes (which are the basis of many diseases such as diabetes, obesity, cardiovascular complications, etc.)
- a reduction of blood triglycerides and cholesterol
- a regression of the atherosclerotic process

Ultimately it is believed that optimization of this ratio leads to an improved state of general psycho-physical wellbeing. According to the latest research, when this ratio is not between the ideal values you should change your diet in order to increase the intake of omega-3 or simply supplement your diet with compounds containing a high dose of omega-3.

FOODS RICH IN OMEGA-3

The analysis of the omega-3 content in various foods is very important in the assessment of a correct daily intake.

Cereals, for example, which in our culinary culture are the primary source of food, are a fairly recent acquisition to the human diet (they were introduced no more than 10,000 years ago) and represent a shift in respect to foods for which we have been genetically programmed to consume. The percentage of **omega-6 content** in cereal products is very **high**, while on the contrary the amount of **omega-3** is very **low** and the amount of antioxidants is virtually nil. This observation does not mean that we must eliminate cereal products from our diet, but simply that we must control their consumption and moderate them, giving preference to wholemeal, unrefined products. Omega-3 is much more widely present in products **deriving from the fish group**. It may be noted that sole contains a minimum amount of omega-6 and that fish with higher amounts of long-chain omega-3 are **salmon, sardines, herring, mackerel** and **tuna**. One should not underestimate the amount of omega-3 to be found in meat, although it must be remembered that in meat the ratio between omega-6 and omega-3 strongly favours the former, especially in red meat. In contrast, omega-3 is practically **absent** in **salami, sausages** and **cheeses**.

Livestock bred and raised in cramped conditions have an almost identical ratio of omega-6/omega-3 compared to free-range animals, but have a greater amount of saturated fatty acids that from a health perspective can pose a danger. It should finally be mentioned that the method of preparation (cooking) of fish products significantly changes the fatty acid content to the detriment of omega-3, as is the case with frying. In a healthy subject the ideal supplement is around 2 - 3 grams per day of omega-3 fatty acids. After a period of two to three months this supplement should bring the value of the ratio to around 3. Upon reaching this level you must then change your intake in order to maintain in, and refer to a specialist.

In case of illness we recommend that you consult with your physician or a specialist in dietetics or nutrition so as to optimize the quantity of integration and the frequency with which AA / EPA ratio checks are carried out and to interpret the results correctly. It should be emphasized that in healthy individuals omega-3 intake is in the form of a nutritional supplement advised by the Ministry of Health and not a pharmaceutical drug.

In reference to a diet rich in omega-3, Dr. Sears has created a diet called the Zone. As part of its nutritional objectives, which could best be described as a new lifestyle, Dr. Sears believes that administration of omega-3 fatty acids in a particularly purified state and present in well-defined relationships, can have an extremely positive effect since they help regulate and prevent inflammatory processes related to various diseases and help us to attain optimal mental and physical health.

MONITORING GLYCEMIA AND INSULIN LEVELS

Structuring an ideal diet also means knowing the Glycemic Index (GI) of food, or more precisely the speed with which foods increase the concentration of glucose in the blood. This is to encourage the intake of those foods which have a low GI level, such as vegetables, fruits, some cereals (barley, oats) and of course fish and white meat. All refined carbohydrates have a high GI, so you must be careful with the consumption of pasta, bread, rice, sweets, and simple sugars. This is due to the fact that it is essential to adjust the hormone insulin, which in response to elevated glucose concentrations directs glucose into the cells. This phenomenon when elevated activates the production of cholesterol and fat storage in the adipose (or *fat*) cells. Sometimes when developing a diet it is sufficient to control hormones instead of calories: high levels of insulin increase the sense of hunger, and consequently the incidence of weight gain.

The measurement of GI in foods is subject to many variations, such as their degree of maturation, the way they are cooked, the person who is consuming them and the total glycemic value of the meal. GI is therefore useful as a guide in the selection of foods, but not as an absolute value.

The Zone diet, in this regard, is based on monitoring the IG of the food consumed with each meal, so as to adjust the insulin peaks to avoid them being too high after meals.

Blood glucose and insulin levels are thus two fundamental parameters to keep monitored, as a prevention of heart disease and weight gain.

Together these two parameters offer the possibility to calculate the HOMA index, which represents the index of the risk of incurring type II diabetes mellitus, a metabolic disease increasingly widespread in Western society with its excessive intake of sugars and refined carbohydrates.

REPEATING THE TEST

We recommend repeating the test after about 3 months, during which time you can verify the acquisition and assimilation of omega-3 being supplemented in the diet.

In the case of therapeutic drug monitoring, or pathological conditions, we recommend repeating the test according to the advice of your doctor.

In case of difficulties in interpreting the results of the report, or during the course of a pathological condition, it is advisable to seek the opinion of a specialist able to provide targeted treatment support.

IMPORTANT INFORMATION

The test results must always be framed in a context relevant to the individual patient by his or her physician and regarding their specific clinical situation. This test can not be partially reproduced. The laboratory results, charts and explanations contained within this document should not be treated as a medical diagnosis. They represent only one tool available to the doctor in formulating a correct treatment, and may be used by integrating them with other elements found during a check-up, or by other diagnostic tests.

TEST READING GUIDE

Key:

- GREEN TRAFFIC LIGHT: the values fall within the range of normality
- RED TRAFFIC LIGHT: the value is outside the range of reference
- RANGE OF NORMAL VALUES: indicated by the blue line

