

# TEST REPORT

*Balance 4Life*



**Fatty Acids Profile and  
Dietary Advice**

## Your Summary Result

Welcome to ZinzinoTest Report

**The test scores tells you if your diet is pro-, semi- or anti-inflammatory, so you can change your diet if it is necessary. You can be confident that you will have an anti-inflammatory diet in 120 days as long as you follow our 3-steps advise program.**

1. Eat a diet rich in omega-3 and low in carbohydrates. Include fatty fish, fruits, salads, vegetables, nuts and in general organic foods, when possible. Reduce excessive omega-6 rich plant oils, and processed convenience foods that contain them. Remember, grain-fed meats also contains high amounts of omega-6.

2. Consume omega-3 rich Zinzino Balance foods, as recommended.

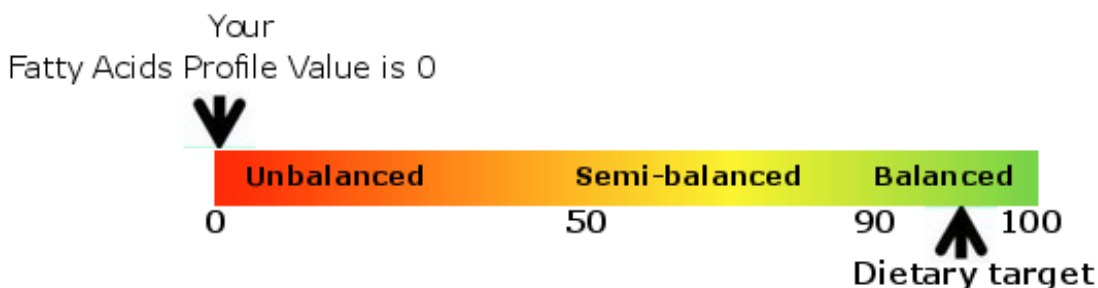
3. Exercise. Exercise is a crucial factor for good health.

The scientific route is to study each of "**Your Dietary Indicators**", described to the level of present scientific know how, before deciding which "**Dietary Advice**" to follow, if needed.

For your convenience you may also send the complete, or selected parts, of your Zinzino Balance**Test Report** as a PDF to your email to make a printout or to store it on your computer.

### Your Summary Result:

**Your Protection (Fatty Acids Profile Value)** reflects the degree to which your diet protect you against our most dangerous lifestyle related health issues, and how the balance between the fatty acids in your diet affect your tendency towards inflammation and inflammatory conditions.



**Your Present Diet is: Unbalanced and pro-inflammatory**

If your Fatty Acids Profile Value is above 90 % (green zone, Dietary target) your diet is balanced and less susceptible towards developing inflammatory conditions in the body. Although your diet is good, many people with "green value" may benefit from adopting the "Balanced Diet Maintenance Advice" described in "Your Dietary Advice" in order to maintain present state of health and wellbeing.

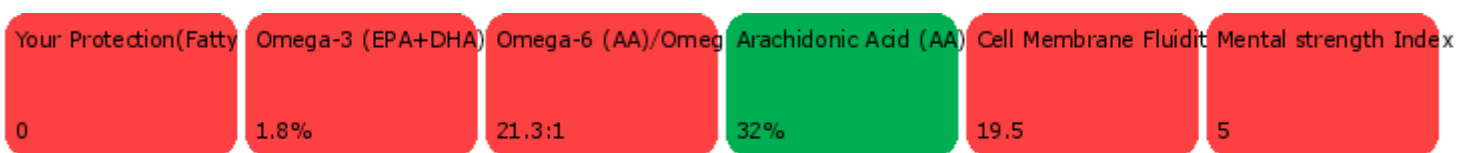
If your Fatty Acids Profile Value is less than 90 % (yellow or red zone) you may benefit from changing your diet as described in "Your Dietary Advice" under "Longer Term Dietary Advice" or "Fast Track Dietary Advice".

Perceptible changes will first take place in the cells of the immune system that have a "lifetime" of 2 - 9 days before they are renewed, then in the skin cells that have a "lifetime" of 14 - 20 days, and eventually in the red blood cells that have a "lifetime" of 120 days. Studies show that a stable state of health will be achieved after approximately 100 days. However, if you subsequently return to a pro-inflammatory diet you will gradually revert to the initial condition.

***The key message is that a balanced anti-inflammatory diet must be maintained for life.***

By clicking on the buttons in the top menu you may study in more details the individual indicators that decides if your diet is balanced (anti-inflammatory) or unbalanced (pro-inflammatory) and how your diet affects your health. You will also get proper dietary advices to balance your diet and how to maintain a balanced diet for life.

You may also get a PDF of your report sent to your email by selecting the "Zinzino Report on Email" button.



## Food evolution

Genetic factors determine susceptibility to disease, but environmental factors such as nutrition and physical activities determine which genetically susceptible individuals will be affected. The spontaneous mutation rate for human nuclear DNA is low, and is estimated at 0.5 % per million years. This means that our genetic profile is very similar to that of our ancestors, and shaped around their diet rather than ours. Oils and fats formed an essential part of their diet, including saturated and monounsaturated (omega-9), and polyunsaturated fatty acids (omega-6 and -3), with the latter at a roughly 1:1 ratio. These are shown in Table 2.

Fatty acids	Chemical name	Type of fat
Palmitic acid (PA)	C16:0	saturated
Stearic acid (SA)	C18:0	saturated
Oleic acid (OA)	C18:1	omega-9
Linoleic acid (LA)	C18:2	omega-6
Alfa-Linoleic acid (ALA)	C18:3	omega-3
GammaLinolenic acid (GLA)	C18:3	omega-6
dihomoGammaLinolenic acid (DHGLA)	C20:3	omega-6
Arachidonic acid AA)	C20:4	omega-6
Eicosapentaenoic acid (EPA)	C20:5	omega-3
Docosapentaenoic acid (DPA)	C22:5	omega-3
Docosahexaenoic acid (DHA)	C22:6	omega-3

**Table 2. The Zinzino Test Report Fatty Acids Profile**

The rapid and extensive dietary changes that have occurred over the past 100-150 years are a new phenomenon in the history of human evolution, and have had a dramatic impact on our intakes of fatty acids and flavonoids. Ready meals and processed foods have turned our diet away from marine omega 3's, and towards the omega-6's in vegetable oils (+46 %), with increased saturated fatty acids in meat (+36 %), and huge increases in the empty calories provided by sugars and starches (+35 %). At the same time we have reduced our intakes of complex carbohydrates and fibre (-38 %) and fresh vegetables (-24 %).

These unhealthy trends have been exacerbated by a 50 % decrease in physical activity and an equally substantial reduction in our calorific needs and food intakes. In brief, our western diets have turned from balanced and anti-inflammatory to unbalanced and pro-inflammatory. These changes have had a profound impact on our health, and are driving the current epidemics of degenerative (inflammatory) disease.

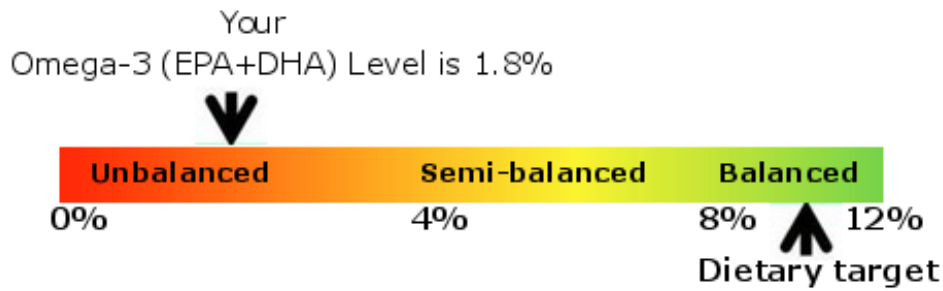
The contribution of fat to our energy supply is qualitatively and quantitatively important. Since the 1970s our intake of calories in the form of fat has steadily *decreased*, but obesity has *increased*. This is partly due to excess energy from sugars and starches being converted and stored as saturated fat in adipose tissue in the body. This has major consequences.

The molecular structure of fatty acids determines both their effects on health and how fast they can be released from adipose tissue; and we now know that polyunsaturated fatty acids are released and oxidised much more rapidly than their saturated fatty acids. This is especially important during prolonged muscular exercise, when up to 80 % of the energy is supplied by lipid oxidation. A carb-rich diet therefore lays down fat that is not only more pro-inflammatory, but is harder to lose.

***The key message is that a balanced fatty acids profile is an essential part of a balanced diet to promote good health.***



## Omega-3 (EPA+DHA) Level



The level of marine omega-3 EPA and DHA in your fatty acids profile should preferably be above 8 % (green zone, Dietary target) of the total fatty acids. If the level drops below 4 % (red zone) the body may experience difficulties in maintaining normal cell and tissue development (homeostasis).

If **Omega-3 (EPA+DHA) Level** is below 8 % (red or yellow zone) you may benefit from changing your diet according to “Your Dietary Advice”.

Omega-3 (EPA+DHA) Level is the combined percentage value of the marine omega-3 fatty acids EPA and DHA out of the total value of fatty acids found in the blood (Table 3b). The fatty acids profile in the blood represent the types of fats your body has available for energy and to develop cells and tissues.

Fatty Acids	Chemical name	Type of fat	Anti-inflammatory Fatty Acids Profile, %	Your Fatty Acids Profile, %
Palmitic acid (PA)	C16:0	Saturated	22.9	<b>20.7</b>
Stearic acid (SA)	C18:0	Saturated	12.3	<b>14.3</b>
Oleic acid (OA)	C18:1	omega-9	22.2	<b>22.1</b>
Linoleic acid (LA)	C18:2	omega-6	20.8	<b>27.9</b>
Alpha-Linolenic acid (ALA)	C18:3	omega-3	0.7	<b>1.0</b>
Gamma-Linolenic acid (GLA)	C18:3	omega-6	0.2	<b>0.1</b>
Dihomo Gamma-Linolenic acid (DHGLA)	C20:3	omega-6	1.1	<b>2.3</b>
Arachidonic acid (AA)	C20:4	omega-6	8.4	<b>8.9</b>
Eicosapentaenoic acid (EPA)	C20:5	omega-3	4.0	<b>0.4</b>
Docosapentaenoic acid(DPA)	C22:5	omega-3	1.9	<b>0.8</b>
Docosahexaenoic acid (DHA)	C22:6	omega-3	5.5	<b>1.4</b>
<b>Fatty Acids Profile Value</b>			<b>&gt; 90 %</b>	<b>0</b>

**Table 3b. Average Fatty Acids Profile from balanced and anti-inflammatory diets (n = 700) and Your Fatty Acids Profile in a colour corresponding to your inflammatory status.**

**Omega-3 (EPA+DHA) Level** is an important determinant in many disease processes including heart disease, hyper tension, insulin resistance and diabetes, asthma, depression, attention deficit hyperactivity disorder (ADHD) and more.

The importance of a proper balance of the long chain essential fatty acids AA (omega-6), EPA (omega-3) and DHA (omega-3) can not be overemphasized since the brain, nerves, eyes, connective tissue, skin, blood vessels, and every cell in the body depend on a proper balance for optimal function.

The marine omega-3 eicosapentaenoic acid (EPA) is the most important omega-3 fatty acid found in muscles and liver, while the marine omega-3 docosahexaenoic acid (DHA) is dominant in the eyes, semen and cerebral cortex.

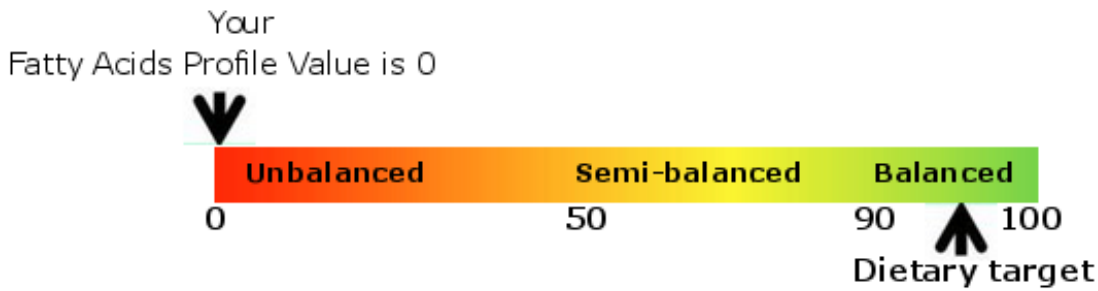
The omega-3 fatty acid DHA is essential for the healthy development of brain and retina, particularly in premature infants, as it accounts for 40 % of brain membrane phospholipids. Good intake of DHA are associated with multiple health benefits including brain and retinal development, aging, memory formation, synaptic membrane function, photoreceptor biogenesis function, and neuroprotection.

**Scientific Articles: Studies**

- Blasbalg TL et al. (2011) Changes in consumption of omega-3 and omega-6 fatty acids in the United States during the 20th century *Am J Clin Nutr.* 93(5):950-962
- Calder PC (2006) n-3 polyunsaturated fatty acids, inflammation, and inflammatory diseases *Am J Clin Nutr.* (83)(6 Suppl):1505-1519
- Castañer, O et. al. (2011) The effect of olive oil polyphenols on antibodies against oxidized LDL. A randomized clinical trial. *Clin Nutr.* 30(4):490-3.
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- Germano, M., Berra, B., Rizzo, A.M. et. al.(2007). Plasma, red blood cells phospholipids and clinical evaluation after long chain omega-3 supplementation in children with attention deficit hyperactivity disorder (ADHD). *Nutr Neurosci.* 10(1-2):1-9
- Harris, WS et. al. Tissue Omega-6/Omega-3 Fatty Acid Ratio and Risk for Coronary Artery Disease. *Am J Car.* (98):419–26
- Harris, WS (2010) Omega-6 and omega-3 fatty acids: partners in prevention *Curr Opin Clin Nutr Metab Care* 13:125–129
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- Health claims related to polyphenols in olive (2011) *EFSA Journal* 9(4):2033
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- Simopoulos, AP (1991) Omega-3 fatty acids in health and disease and in growth and development. *Am J Clin Nutr* (54) 3: 438-463
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- Simopoulos AP (2008) The importance of the omega-6/omega-3 fatty acid ratio in cardiovascular disease and other chronic diseases *Exp Biol Med.* (233)6:674-88.
- Valentine RC, Valentine DL (2004) Omega-3 fatty acids in cellular membranes: a unified concept. *Prog Lipid Res.* (43)5:383-402



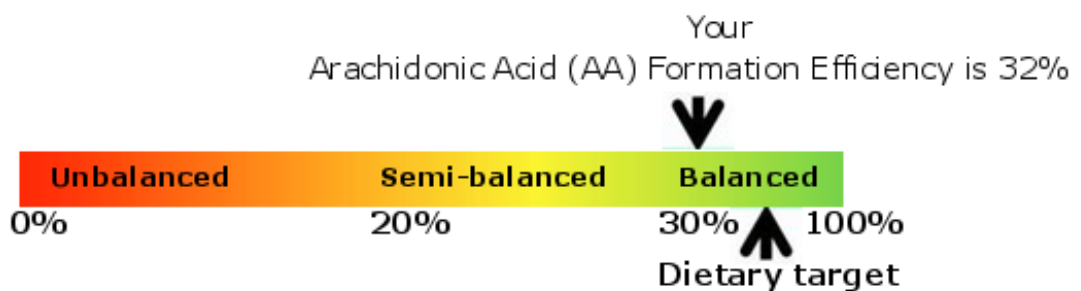
## Your Dietary Advice



**Your Present Diet is: Unbalanced and pro-inflammatory**

If **Your Protection (Fatty Acids Profile Value)** is above 90 % (green zone, Dietary target) your diet is balanced and you are less likely to develop inflammatory conditions. Although your diet is stable, you may benefit from adopting the "Balanced Diet Maintenance Advice" to maintain your present state of health and wellbeing. The key message is that a balanced anti-inflammatory diet must be maintained for life.

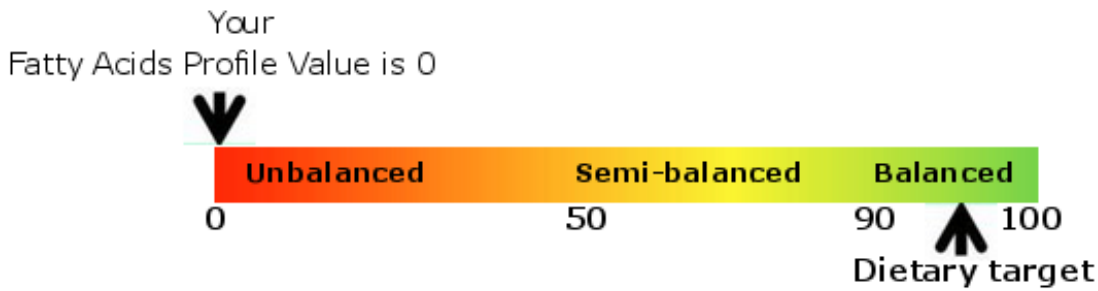
If your Fatty Acids Profile Value is less than 90 % (yellow or red zone) you may benefit from changing your diet as described in the "Longer Term Dietary Advice" or "Fast Track Dietary Advice". Active individuals that are genetically susceptible to disease are especially vulnerable if their daily diet is unbalanced and pro-inflammatory. Individuals that regularly exercise heavily should consult with "Sport and Health" in the top menu.



If your **Arachidonic Acid (AA) Formation Efficiency** is below 30 % (yellow or red zone) you may have an enzyme failure in the metabolism of omega-6 linoleic acid (LA) to omega-6 Arachidonic Acid (AA). This will directly influence your dietary requirement and you should consult the "Special Arachidonic Acid Dietary Advice".

When you change your diet perceptible changes will first take place in the cells of the immune system that have a "lifetime" of 2 - 9 days before they are renewed, then in the skin cells that have a "lifetime" of 14 - 20 days, and eventually in the red blood cells that have a "lifetime" of 120 days. Studies show that stability is achieved after 14 - 16 weeks. However, if you subsequently return to a previous pro-inflammatory diet you will gradually revert to where you started.

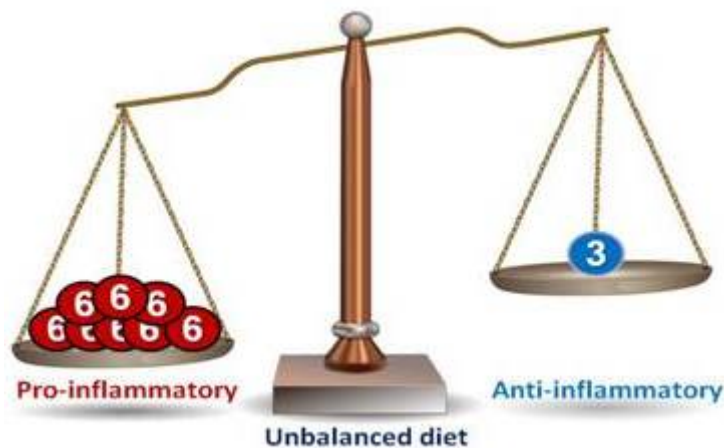
## Longer Term Dietary Advice



**Your Present Diet is: Unbalanced and pro-inflammatory**

An unbalanced pro-inflammatory diet (Figure 10) is a driving force in inflammatory diseases. Important countermeasures to reduce the oxidative stress level and to prevent excess omega-6 arachidonic acid from being converted into inflammatory products are vital.

Substances that suppress inflammation will protect against cardiovascular and other inflammatory diseases. The "Balanced Diet Maintenance Advice" recommends ways of increasing the intake of biologically active inflammatory suppressing flavonoids (antioxidants) from olives and simultaneously reducing Omega-6 (AA)/Omega-3 (EPA) Balance below 3:1 (Figure 11).



**Figure 10.** In a pro-inflammatory diet omega-6 outbalance omega-3 in cell membranes.



**Figure 11. "Balanced Diet Maintenance Advice" is to balance omega-6 and omega-3 in cell membranes while protecting blood lipids from oxidative stress by using a combination of flavonoids from olives and adequate omega-3 EPA and DHA from fish.**

<b>Fatty Acids</b>	<b>Chemical name</b>	<b>Type of fat</b>	<b>Anti-inflammatory Fatty Acids Profile, %</b>	<b>Your Fatty Acids Profile, %</b>
Palmitic acid (PA)	C16:0	Saturated	22.9	<b>20.7</b>
Stearic acid (SA)	C18:0	Saturated	12.3	<b>14.3</b>
Oleic acid (OA)	C18:1	omega-9	22.2	<b>22.1</b>
Linoleic acid (LA)	C18:2	omega-6	20.8	<b>27.9</b>
Alpha-Linolenic acid (ALA)	C18:3	omega-3	0.7	<b>1.0</b>
Gamma-Linolenic acid (GLA)	C18:3	omega-6	0.2	<b>0.1</b>
Dihomo Gamma-Linolenic acid (DHGLA)	C20:3	omega-6	1.1	<b>2.3</b>
Arachidonic acid (AA)	C20:4	omega-6	8.4	<b>8.9</b>
Eicosapentaenoic acid (EPA)	C20:5	omega-3	4.0	<b>0.4</b>
Docosapentaenoic acid (DPA)	C22:5	omega-3	1.9	<b>0.8</b>
Docosahexaenoic acid (DHA)	C22:6	omega-3	5.5	<b>1.4</b>
<b>Fatty Acids Profile Value</b>			<b>&gt; 90 %</b>	<b>0</b>

**Table 3a. Average Fatty Acids Profile from balanced anti-inflammatory diets (n = 700) and Your Fatty Acids Profile in a colour corresponding to your inflammatory status.**

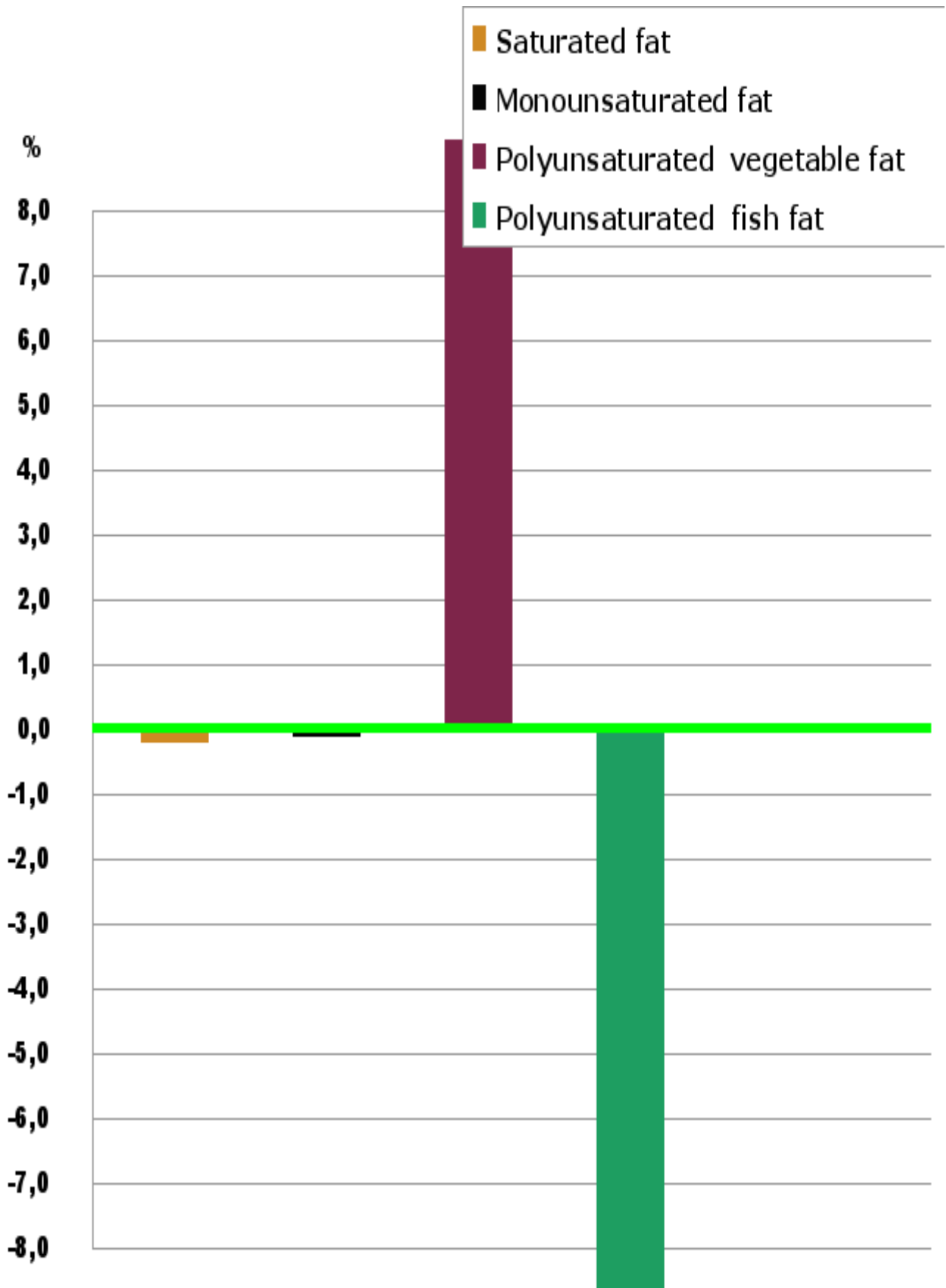
To provide dietary advices Fatty Acids Profile as shown in Table 3a must be rearranged into **Fatty Acids Groups Profile** of "Saturated fat", "Monounsaturated fat", "Polyunsaturated vegetable fat" and "Polyunsaturated fish fat", as shown in Table 4.

%imagegraph2%

**Table 4. Deviation from a Balanced Diet is measured as the discrepancy between Your Fatty Acids Groups Profile and a Balanced Fatty Acids Groups Profile (n = 700).**

The discrepancy between Your Fatty Acids Groups Profile and a Balanced Fatty Acids Groups Profile (Table 4) enables us to provide healthy dietary advices to balance your diet. Fat types that you should consume less have a positive value in Table 4 and in Figure 12 (pointer up), while fat types that you should consume more have a negative value in Table 4 and in Figure 12 (pointer down).

If your "Fatty Acids Groups Profile" is above 90 % (green value) you should not change your diet. All diets, including a balanced diet, will show deviation from an average balanced diet.



**Figure 12.** Deviation from a Balanced Diet is measured as the discrepancy between Your Fatty Acids Groups Profile and a Balanced Fatty Acids Groups Profile (n = 700).

The advices provided are based on the fact that main dietary sources have different "Fatty Acids Groups Profile", as shown in Figure 13.

<p>➤ <b>Saturated fat</b></p> <ul style="list-style-type: none"> <li>• Fatty dairy products: <i>milk, butter, cream, cheese</i></li> <li>• Meat</li> <li>• Cakes and pastries</li> <li>• Biscuits and crackers</li> <li>• Sauces</li> <li>• Fast food, hamburgers, pizza</li> <li>• Surplus carbohydrates: <i>sugar, starch, white bread, potatoes, rice and pasta</i></li> </ul>	<p>➤ <b>Monounsaturated fat (Omega-9)</b></p> <ul style="list-style-type: none"> <li>• Olives and olive oil</li> <li>• Rapeseed oil</li> <li>• Almonds</li> <li>• Avocado</li> <li>• Peanuts</li> <li>• Brazil nuts</li> <li>• Cashew nuts</li> <li>• Hazelnuts</li> <li>• Pistachio nuts</li> </ul>
<p>➤ <b>Polyunsaturated vegetable fat (Omega-6)</b></p> <ul style="list-style-type: none"> <li>• Vegetable margarine, vegetable oils, mayonnaise, mayonnaise-covered salads</li> <li>• Meat</li> <li>• Sunflower oil</li> <li>• Corn oil</li> <li>• Soybean oil</li> <li>• Grapeseed</li> <li>• Sesame seeds</li> </ul>	<p>➤ <b>Polyunsaturated fish fat (Omega-3)</b></p> <ul style="list-style-type: none"> <li>• Fatty fish; <i>salmon, trout, herring, mackerel, tuna fish, sardines, wolf-fish, flounder</i></li> <li>• 1Life Active oil <i>To restore and maintain the balance</i></li> <li>• 1Life Active powder <i>To restore and maintain the balance</i></li> </ul>

**Figure 13. Dietary fat groups with main sources in diet.**

The "Longer Term Dietary Advice" presented below should not be used to increase your energy intake if your body mass index is above 25 (BMI = your weight in kg/length in meter<sup>2</sup>).

**Saturated fat (non-essential)**

**Your intake of saturated fat should be:**

If you need to reduce your intake of saturated fat (pointer up in Figure 12) to improve "Fatty Acid Groups Profile" and especially "Cell Membrane Fluidity Index" you may reduce your intake of products listed under the heading "Saturated fat" in Figure 13, or you may shift to low fat version of the same products.

Please note that excess sugar in your diet will be converted and stored as saturated fatty acids both in cell membranes and in adipose tissues. Thus, reducing your sugar and starch intake will also reduce saturated fat in the body.

On the other hand, if your diagram in Figure 12 shows negative values (pointer down), indicating that you may increase your intake of saturated fat, you may increase your intake of pure meat combined with limited intake of cheese and other dairy products. We don't recommend increased intake of any other product groups listed under the heading "Saturated fat" in Figure 13.

### **Monounsaturated fat (non-essential)**

**Your intake of monounsaturated fat should be :**

If you need to reduce your intake of monounsaturated fat (pointer up in Figure 12) to improve "Fatty Acid Groups Profile" and especially "Cell Membrane Fluidity Index", you may reduce your intake of products listed under the heading "Monounsaturated fat (omega-9)" in Figure 13. If your diagram shows negative values (pointer down) you may increase your intake of the same products.

Monounsaturated fatty acids are generally considered to be healthier than saturated fatty acids, although your body is able to produce both fatty acids groups from various raw materials. In the traditional low calorie Mediterranean diet the dietary ratio between monounsaturated- and saturated fatty acids is close to 2:1, corresponding to a ratio in blood around 1:1.

### **Polyunsaturated vegetable fat (essential)**

**Your intake of polyunsaturated vegetable fat should be:**

If you need to reduce your intake of polyunsaturated vegetable fat (pointer up in Figure 12) to improve "Fatty Acid Groups Profile" and "Omega-6 (AA)/Omega-3 (EPA) Balance", you may reduce your intake of products listed in Figure 13 under the heading "Polyunsaturated vegetable fat (omega-6)", or you may shift to low fat version of the same products.

Try to avoid products that are formulated on high omega-6 vegetable oils such as sunflower oil, corn oil and soya oil. You can reduce your intake of omega-6 just by shifting to products that are formulated on low omega-6 vegetable oil sources such as olive oil and rapeseed oil.

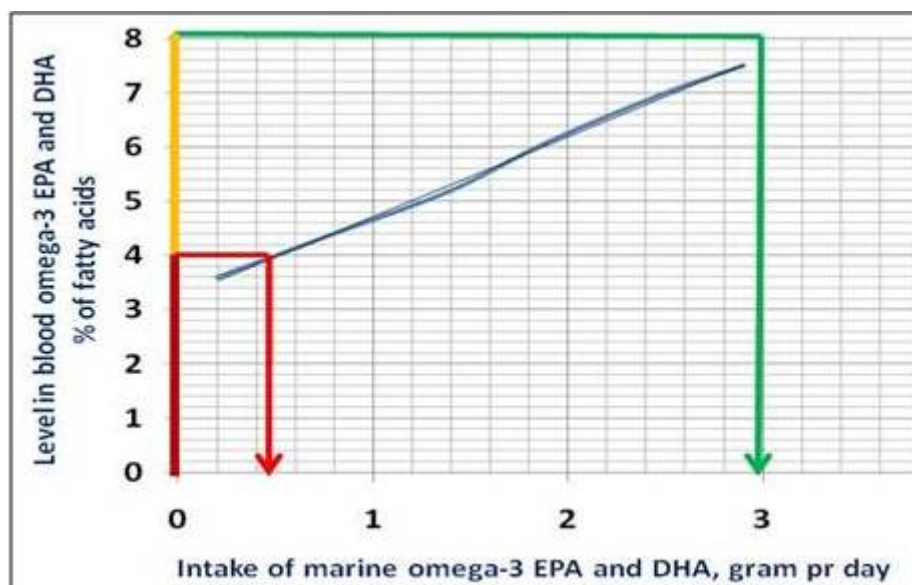
If your diagram shows negative values (pointer down) you may increase your intake of the same products.

### **Polyunsaturated fish fat (essential)**

#### **Your intake of polyunsaturated fish fat should be:**

Today western diets are generally deficient in omega-3 compared with the diet on which humans evolved which helped establish our genetic patterns. Thus, most people need to increase their dietary intake of polyunsaturated fish fat (pointer down in Figure 12) to improve "Fatty Acid Groups Profile" and "Omega-6 (AA)/Omega-3 (EPA) Balance". The only food sources available to increase intake of polyunsaturated fish fat are the various fatty fish species, such as those listed under the heading "Polyunsaturated fish fat (omega-3)" in Figure 13.

Daily requirement of marine omega-3 EPA and DHA is dependent on your body weight. Adult persons of 80 kg body weight need to consume approximately 3 gram omega-3 (EPA+DHA) daily to get the "Omega-3 (EPA+DHA) Level" above 8 %. The minimum of 4 % "Omega-3 (EPA+DHA) Level" in the fatty acids profile requires at least 0.5 gram omega-3 (EPA+DHA) daily (Figure 14). Most omega-3 supplements in the market suggest daily dosages of marine omega-3 in the range of 150 mg to 1.5 gram. This is far too little to reach your dietary target of 8 % "Omega-3 (EPA+DHA) Level" if you don't combine such omega-3 supplements with daily intake of fatty fish.



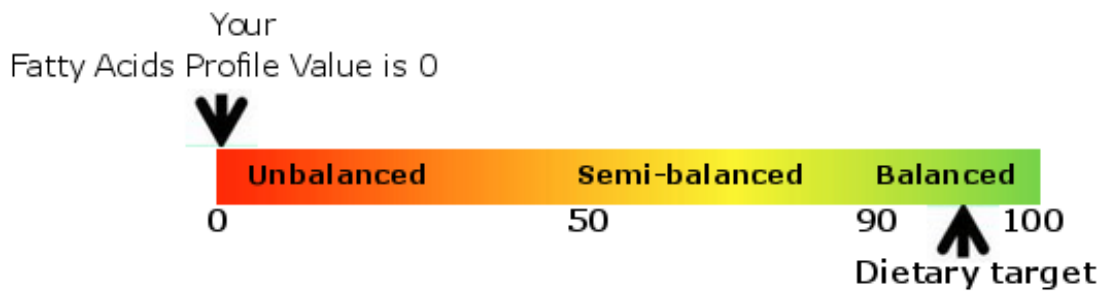
**Figure 14. Daily intake of marine omega-3 EPA and DHA and their corresponding Fatty Acids Profile values.**

Most omega-3 supplements in the market add tocopherols (vitamin E) antioxidants for stabilization purposes. Tocopherols does not compensate the removal of nutrients and important anti-inflammatory components during fish oil refining.

On the other hand, a combination of biologically active antioxidants from selected olives (flavonoids) combined with an adequate dosage of marine omega-3 EPA and DHA (2:1) from fish, compensate efficiently the loss of anti-inflammatory components during oil refining. You can use a combination olive oils and omega oils to faster achieve the dietary target.



## Fast Track Dietary Advice



**Your Present Diet is: Unbalanced and pro-inflammatory**

If **Your Protection (Fatty Acids Profile Value)** is less than 90 % (yellow or red zone) you may benefit from changing your diet. If you have problems in changing your diet as suggested in the "Longer Term Dietary Advice" you may choose to follow our "Fast Track Dietary Advice":

The correct daily dose (adjusted to your body weight) of Olive Oil and Omega Oils will rapidly improve your fatty acids profile, and provide a fast track to a balanced and anti-inflammatory diet for life. You are advised to follow the daily dosage indicated by the red line for the first 120 days. Due to the storage of omega-3 in the cell membranes you may lower the daily dosage after 120 days and continue with the daily dosage indicated by the green line for life.

Flavonoids from olive in will protect the blood lipids from oxidative stress in the same way as 5 - 9 portions of fruit and vegetables per day. It is the joint effects of marine omega-3 EPA and DHA and flavonoids from olive that make these products unique.

Perceptible changes will first take place in cells of the immune system that have a "lifetime" of 2 - 9 days before they are renewed, then in skin cells that have a "lifetime" of 14 - 20 days, and eventually in red blood cells that have a "lifetime" of 120 days. Studies show that stability is achieved after 14 - 16 weeks.

A good balanced anti-inflammatory diet will strengthen your heart, brain, eye and immune function, and improve your general health. This is especially important for those who wish to have a healthier life, well protected from our most dangerous lifestyle related health issues.

## Balanced Diet Maintenance Advice

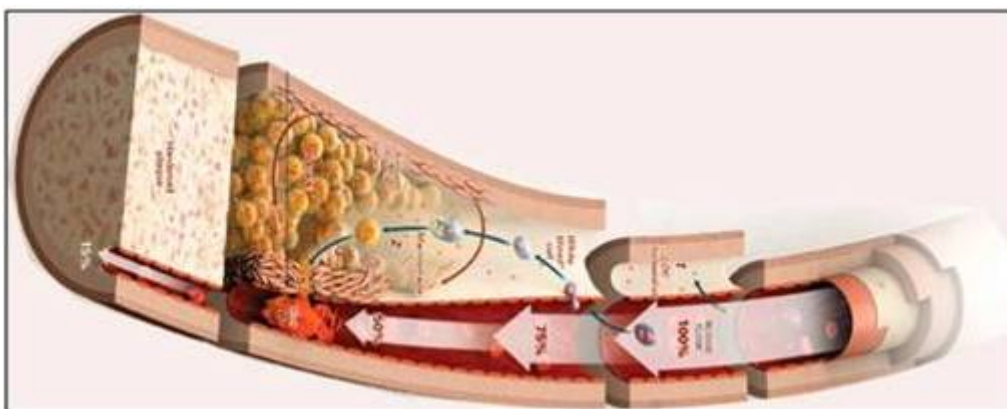
*The key message is that a balanced anti-inflammatory diet must be maintained for life.*

If your Test shows that your present diet is balanced and anti-inflammatory, or you have been following "Longer Term Dietary Advice" or "Fast Track Dietary Advice" for 120 days to balance your diet, you will need to maintain your present state of health and wellbeing. By returning to an unbalanced pro-inflammatory diet you will risk reverting back to the initial condition.

Olive Oils and Omega Oils contains a combination of biologically active antioxidants from olives (flavonoids) and an adequate daily dosage of marine omega-3 EPA and DHA from fish. It is the joint effects of the anti-inflammatory omega-3 EPA and DHA from fish and the flavonoids from olive that make these products unique. The flavonoids from olive protect the blood lipids from oxidative stress in the same way as 5 - 9 portions of fruit and vegetables per day, while marine omega-3 balance inflammation.

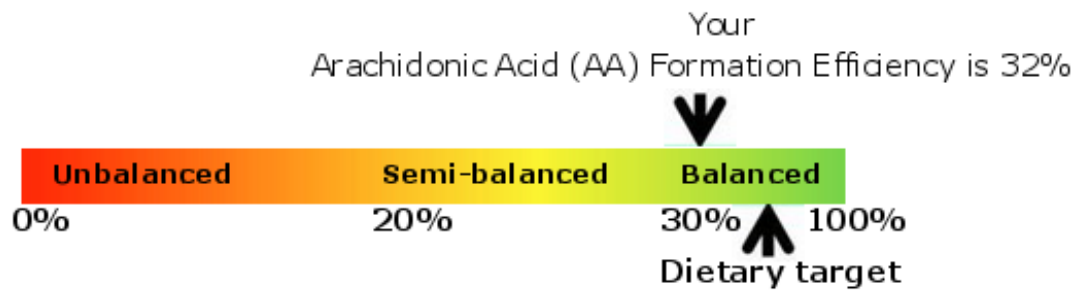
Oxidative stress is a condition that arises when there is an imbalance between the production of rancidity products in the body and the body's defence against rancidity. This often occurs at times of prolonged physical activity and when the diet is unbalanced and pro-inflammatory. Good protection requires an intake of 5 - 9 portions of fruit, green vegetables or olives every day. However, most people only manage less than half of their recommended daily intake.

Olive Oil and Omega Oil will also help to subdue hyperactive monocyte cells in the immune system; while simultaneously counteracting oxidation of LDL-cholesterol. These are two major risk factors in the process of atherosclerosis. In addition the marine omega-3 EPA also helps by reducing the activity of blood platelets. This lowers the coagulation speed when a blood clot is formed after the artery wall splits and plaque enters the bloodstream in the process of atherosclerosis (Figure 4).



**Figure 4.** Formation of a narrow blood vessel in the process of atherosclerosis and a blood clot after the artery wall splits.

## Special Arachidonic Acid Dietary Advice



### Special Dietary Advice:

Individuals with **Arachidonic Acid (AA) Formation Efficiency** below 30 % (red or yellow zone) are advised to consume foods that contain omega-6 arachidonic acid (AA) on a daily basis; egg yolks, bone marrow, meats from grain-fed birds and animals. Grain-fed chicken, turkey and pigs are normally good sources for Arachidonic acid. Farmed Salmon can also be a good source of AA.