



Cite as: Molnár, J., Pal, M., Koliopoulos, T. (2021). Growing Significance of Functional Foods to Protect Health, vol. 4, issue 1, pp. 17-31, Journal Emerging Environmental Technologies and Health Protection (JEETHP), ISSN 2623-4874, e-ISSN 2623-4882, <https://www.telegeco.gr/JEETHP4I1A1.pdf>

## Growing Significance of Functional Foods to Protect Health

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### Abstract

Nowadays have been meeting functional foods with their effects on the human body many times during our life. Therefore, this manuscript presents functional foods, practice of functional nutrition and the role of physical activity and mental balance in healthy life. It is important this acquaintance and its incorporation into everyday life, where could be reduced the probability of getting many chronic diseases. In this working study, are presented useful healthy dishes for public health protection. These dishes are presented with functional nutrition such as mozzarella – tomato baguette; fried chicken breast with ham salad and kernel bread; boiled eggs with vegetable’s salad and seeded baguette; smoked cheese with green salad and mini baguettes; vegetable smoothie with seeds; multi-seeded vegetable salad; vegetable and fruit smoothie with herbs; raspberry cream with whole grain biscuits; garlic cream soup with wholemeal bread cubes; carrot cream soup with roasted pumpkin seeds; pineapple chicken breast with jasmine rice; pork chop with cashew, spinach leaves and potato garnish; vegetable salad with seeds and pomegranate in kefir sauce with a mini baguette; egg cream with green herbs on seeded baguette with tomato; vegetables with mozzarella, seeds and a whole grain bun; fish salad with vegetables and wholemeal bread. The results of the examining working study will be useful for sustainable development of our community. Also in the end are discussed food security issues for sustainability and public health protection.

**Keywords:** functional foods, functional nutrition, physical activity, mental balance, healthy life, healthy diet, food security

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## 1. INTRODUCTION

The functional eating, physical activity and mental balance play an important role in healthy life. Functional foods, their characterization and their effects on the human body form the basis of many scientific texts (Díaz et al., 2020; Nystrand et al., 2021; Nystrand and Olsen, 2020; Iwatani and Yamamoto, 2019). Some kinds of determinations of functional foods have already been given by many nations, however no one exact definition exists, unlike the definition of organic foods. Furthermore, we can determine such factors that impart functional properties to a food. Functional foods always fulfil a special function in the human body. They have outstanding effects on stimulating defence mechanisms, preventing diseases, promoting healing, increasing physical and mental power and slowing down or completely inhibiting the ageing process of the organism (Matrisciano and Pinna, 2020). Of course, the attribution of these products with medicinal properties is still excluded. Functional foods distinguished by their origin, the method of their production and the effects they have on the human health.

When grouping by origin, foods of animal origin and vegetable foods could be distinguished (Dotto and Chacha, 2020). The second way of grouping we can use is the method of production. Functional products also have a role in protecting our organ system, in health promotion and prevention of diseases.

## 2. WHY FUNCTIONAL NUTRITION?

Answers to these questions could be found in Psychology, Food Marketing and Nutrition Science. Fight against chronic diseases – that nowadays competing with acute illnesses - has become one of the most important problems in the world. The main reasons of it are the lifestyle characteristics of modern societies. Obesity, type 2 diabetes mellitus, metabolic X syndrome, hypertension and high cholesterol are the main results of mastering poor lifestyle and nutrition. A high percentage (70%) of healthy diets and the consumption of functional foods provide a preventive effect against the development of these diseases

Therefore, the third way of grouping analyses their effects on the physiological functioning of the human body (Tadesse and Emire, 2020).

Opportunities for developing functional foods can also form part of chapters – or even books – in many specialized articles (Lenssen et al., 2018; Chakraborty and Joy, 2020). The most commonly used method is fortification, in which they increase the amount of different nutrients in certain food. In some cases, the unfavourable components are replaced by favourable ones while extending changes the nutrient content of certain food. In addition to developmental technologies, the way, in which technological influence could happen, may also change.

The manuscript introduces the qualities of functional foods, in general and their effects on the human body. We are going to mention the important factors that contribute to the development of mental balance and physical activity and we also found being in a strong connection with healthy life. In addition to the theoretical background, the implementation of functional nutrition in practice cannot be negligible.

Therefore, we would like to present light foods made by using functional foods so that we can contribute to the health of the readers. Considering the scientific content of the manuscript, we would strongly recommend reading it as a basic for further studies, future manuscripts and implementation of functional nutrition in practice.

(Sandner et al., 2020), while sports and other forms of physical activity play another major role (30%) in prevention.

Nowadays, we often find that good-looking and well-balanced people can be seen much healthier and attractive than others. Why is it possible? Having scientific knowledge of functional nutrition and a thorough psychological review of it, after many brainstorming sessions, we always come to the conclusion that applying the right knowledge of nutritional facts can increase our energy levels, and thereby make us more balanced, attractive, and healthier. This in turn has a positive effect on good self-esteem, which is also the key to happiness.

Besides nutrition and proper self-esteem, regular exercising should not be neglected. A customized workout program can also increase your body's fitness and can prevent the development of modern diseases. So choosing the appropriate kind of sports can be a basic issue alongside dietary recommendations.

### **3. CONNECTION BETWEEN FUNCTIONAL FOODS, FUNCTIONAL NUTRITION, EATING DISORDERS, AND MENTAL HEALTH**

In our days, obesity and related modern-day chronic diseases are not the only problems. Nutrition-related psychological disorders are also dominant in fast-paced societies with people living in a never-ending rush and stress, always have plenty of work with short deadlines and many challenges and a constant compulsion for conformity (Matrisciano and Pinna, 2020).

While the existence of obesity and other chronic diseases could be known and seen, too, nutrition-related mental illnesses sometimes stay hidden. This could probably happen because of the fact that the symptoms and complaints are often shamed by society.

Therefore, the education of healthy and functional nutrition considered to be very important in connection with both prevention and the concrete treatment of these kinds of diseases (Xie et al., 2019). In these cases it is recommended to acquire the special features and rules of healthy eating for a balanced and happy life.

These are determined by international habits, but there are also factors that are consistent throughout the world for presenting a healthy diet. At the international level, the basis of healthy eating could be seen on the pyramid diagram, which shows the food groups and their recommended consumption rates.

Moreover, with the Double Pyramid the BCFN communicates in a concise and effective manner that those foods with higher recommended consumption levels are also those with lower environmental impact. However, the Mediterranean Diet is the model with highest consistency with the Nutritional guidelines and it has positive effects on Environment.

In addition to the recommendations above, the amount of daily energy, protein, fat and carbohydrate

intake are also important (for a healthy adult energy: 2000-2200 Kcal, protein: 12-15 E%, fat: 30 E% and carbohydrate: 55-58 E%). Being in aware of these values, the general need for grams of foods and food ingredients can be easily calculated. These values change in each case.

After acquiring a healthy diet, it is worth studying food with functional properties thoroughly. They are important not only in connection with disease prevention but also with the treatment itself due to their useful active ingredient content.

### **4. APPLYING GENTLE COOKING METHODS**

We distinguish between new and traditional cooking technologies used in the preparation of food. The use of traditional technologies is quite obsolete nowadays, especially among individuals following a functional diet. This is because the use of large amounts of fat in traditional technologies does not fit at all into the principles of healthy eating, where the application of conventional fat is replaced by alternative solutions. Using these alternatives provide access to the reform cuisine, making traditional foods available to a wide range of people. In many cases, the long-term use of conventional methods can lead to chronic cardiovascular and gastroenterological disorders. Therefore, it is much more advisable to use new technologies that revolutionize conventional procedures and which ones seem to reduce the chances of several diseases and the incidence of many chronic conditions (Cropotova et al., 2019).

It is a typical part of new kitchen technology that much less fat or alternatives are used. Unfortunately, these foods are still much more expensive than traditional ones. Fermented products can be used as part of both - traditional and new – technologies (Kocaoglu-Vurma et al., 2008; Chua and Dunkley, 1979). The new (gentle) technology includes cooking, steaming, using a special baking bag, baking without fat, grilling, using baking paper. It is worth keeping the level of active ingredients used in the preparation of food in mind and keeping them in good condition, while also ensuring the hygienic safety of each ingredients.

## 5. ROLE OF SPORTS IN PREVENTION

The importance of knowledge on healthy and functional nutrition and regular physical activities are beneficial to learn at an early age. Literature also shows that besides nutrition, sports also play an important role in preserving health and reducing illnesses. These diseases include, in particular, cardiovascular-, respiratory-, bone and musculoskeletal-, and metabolic disorders. Doing sports activities regularly helps reduce the chance of developing these conditions. In addition to outdoor sports, fitness and public sports programs also have important roles. In many cases, doing public sports programs also entails cost, which will ensure a wide range of education and training.

In case of community activities, doing sports can lead to a state of complete well-being, including mental-, physical- and social health (Sando and Sandseter, 2020; Aarsland et al., 2020; Webb et al., 2019; McHugh et al., 2020; Klompstra et al., 2019; Jakob et al., 2020). It is not by chance that practitioners are also keen on recommending physical exercises as a complement to further therapy to combat or prevent mental illnesses. A correlation can be established between the mental, physical and social dimensions as well.

It is advisable to seek the help of a professional in order to choose the right physical activity. During the preparation of certain training plan there should be a co-ordination with the nutrition details of the athlete, because these should be in correspondence with their lifestyle. In the following lines we will give some helpful advice. Throughout the whole physical activity, it is advisable to favour healthy eating principles and functional dietary recommendations that help people maintain the appropriate level of their physiological processes. It is recommended to consume easily absorbing carbohydrates before the beginning of your workout to provide energy for your body while you are active. After that, however, it is better to opt for complex carbohydrates and to consume as much fiber as possible, according to the points of good nutrition. Low-fat milk and dairy - and meat products with a higher protein content have the potential. The amount of fluid consumed during exercise is well above the general daily intake. At this point, maintaining the salt and water balance of our body is a function of restored

fluid and minerals. Therefore, the amount of physical activities can increase daily fluid consumption to 3-4 liters. Following the basic principles, it is worth mentioning functional foods with high physiologically active ingredients that are excellent supplements to meals. The active ingredients in these products focus primarily on the regulation of metabolism, muscle building, fat- and muscle ratio.

Today, there are many specialized programs and companies that offer the opportunity to master a tailored diet, which gives a final conclusion after a complex body image- and health assessment. Health mentors, who are engaged in this activity, provide opportunities for individualized knowledge of nutrition and physical activity. If you are uncertain about the knowledge of your own physical activity - or if you have a chronic condition that prevents you from learning the right way to move, feel free to contact these organizations and experts.

## 6. BASICS OF MAKING A MEAL PLAN

Journals provide information on healthy living and nutrition. There are far fewer technical books on the practical way of designing our daily diet and the correct application of it. Designing the meal plan is a rather deliberate process to fully meet your energy and macronutrient needs. In each case, this is individualized. The meal plan is always designed for a period of time, which gives the basis of the provision of catering facilities and other catering units. An important part of the rules of meal designing is the determination of the energy and macronutrient ratios for individuals or according to the special needs of the target group. It is always focused on certain amounts of energy, protein, fat and carbohydrate intake. In some cases, it is also worth counting the number of micronutrients that are appropriate to the disease or target group, to ensure that they are maintained. Working with these values require the use of a nutrient table, which is available not only in printed books but also electronically (Zuercher and Lutz, 2018; Cho et al., 2020; Chambers et al., 2020; Sundqvist et al., 2020; Martinelli et al., 2020).

## **7. COOKBOOK FOR HEALTH**

An important part of our educational review is an essential part of the practical implementation of the knowledge that can help greatly enhance the acquaintance of functional foods and nutrition. For this purpose, we would like to present functional foods that can be incorporated into our daily diet. In addition, we will present them by providing five main meals (breakfast, snack in the morning, lunch, snack in the afternoon and dinner), using quantities designed for one person.

## **8. IDEAS FOR BREAKFAST**

Breakfast is an integral part of a balanced diet and contains 20% of the daily meal rate. As for breakfast, the aims are not only to maintain the proportions, ensure quality compliance and provide the appropriate aesthetic pleasure. The most important task of the meal of the morning is to start and maintain a daily energy balance that provides enough energy for everyday activities.

With our breakfast ideas, we hope to be able to give you an overview of functional foods and provide practical help for the implementation. We hope that you will be captivated by diversity and the selective nutritional requirements and then become addicted to healthy, functional nutrition.

### ***Mozzarella – tomato baguette***



**Figure 1.** Mozzarella – tomato baguette (Own recipe)

The combination of mozzarella, tomato and baguette is a unique delicacy as part of breakfast. Furthermore, it is one of the most popular ingredients

of the Mediterranean diet. In Mediterranean countries, foods that form the basis of nutrition have a major role to play in reducing the risk of cardiovascular disease and cancer. It provides complex support to the body in terms of its beneficial, physiologically active ingredients. The functionally active ingredient (lycopene) found in tomatoes has an antioxidant role in our body.

Mozzarella provides protein and plays a major role in human muscle building. Because of the complexity of it of carbohydrates, seeded baguette is the best choice for optimizing long-term blood glucose levels and ensuring balanced metabolism. In the case of a diet containing healthy, functional foods, the consumption rate of these foods will vary according to gender, age, the state of health and the underlying medical conditions. The quantities of functional foods are mozzarella 60 g, tomatoes 100 g and baguette 120 g in our recipe.

### ***Fried chicken breast with ham salad and kernel bread***



**Figure 2.** Fried chicken breast with ham salad and kernel bread (Own recipe)

Thanks to its high protein and low fat content, chicken breast used for breakfast cannot only be a part of a healthy diet, but can also be used for weight loss. A suitable supplement could be a salad with low energy and carbohydrate content, which can be consumed in almost unlimited quantities. The useful vitamin content of it depends on the vegetables used, which may also be varied according to the applied salad combinations. The absorption and utilization of the nutrient components are satisfactory and their fiber content also has a beneficial effect on our body. Seeds contain useful fatty acids that inhibit the ageing process of the human body, while whole

grain bread is a positive physiological factor in this meal. Fluid intake is also not negligible, so we recommend a multivitamin drink rich in antioxidants for this meal. The quantities of functional foods are chicken breast ham 60 g, kernel bread 80 g and salad 200 g in our recipe.

#### ***Boiled eggs with vegetable salad and seeded baguette***



**Figure 3.** Boiled eggs with vegetable's salad and seeded baguette (own recipe)

Eggs are excellent sources of protein as parts of a healthy breakfast, but be careful with them: do not eat more than 3-4 pieces weekly. Despite the fact that egg white can be an integral part of our meals several times, it is necessary to limit the intake of egg yolk due to its high cholesterol content. This restriction is very important for individuals with high cholesterol level. It is advisable to make a green salad using as many vegetables as possible, since fresh vegetables can increase not only the vitamin content but also the enjoyment value. According to several widely known research results published recently, the enjoyment of our food improves appetite thus the utilization of certain nutrients. The complex carbohydrates transported by the seeded baguette can be absorbed into the body, providing many beneficial effects. As part of a balanced breakfast, we also recommend consuming liquid to help maintain the water and electrolyte balance of the body. These drinks include functional products that are fortified with active ingredients. Q10 is one of the most popular supplements supporting cardiovascular health and preventing of myocardial infarction. The quantities of

functional foods are eggs: 2 x 45 g (approx.), baguette: 60 g and vegetables (optional): 100 g in our recipe.

#### ***Smoked cheese with green salad and some mini baguettes***



**Figure 4.** Smoked cheese with green salad and some mini baguettes (own recipe)

We are delighted to present a miracle containing smoked cheese. Thanks to traditional cooking technologies, smoking can produce a product of high enjoyment. In this case, it means smoked cheese, which due to its smoked taste is a favourite of many and can be used as a part of a healthy diet. Due to the high calcium content of cheese, it is a popular part of the diet for patients with osteoporosis, but the high salt content of it may also make it necessary to limit its consumption. This is particularly the case when living with hypertension. Salad and mini baguette also provide a nice balance of taste, but you should also pay attention to the choice of good-quality. We may also need vegetables to energize our body and maintain our digestive balance. The quantities of functional foods are smoked cheese 60 g, mini baguette: 2 x 60 g (approx.), salad (optional) 200 g in our recipe.

## **9. IDEAS FOR SNACK**

Even though it counts for the smallest part of the daily meal (5-5%), snacks in the morning and in the afternoon are important parts of it. In this section,

we would like to make recommendations for creative, tasty, and healthy snacks. We are delighted if more and more of these patterns will be used in practice and allow people to use their own creativity to get to the real practice of good nutrition and functionality in their own lives.

***Vegetable smoothie with seeds***



**Figure 5.** Vegetable smoothie with seeds  
(Own recipe)

Although fruits are often used to make smoothies, vegetables are increasingly used for the same purpose as parts of the reform kitchen. When making a vegetable smoothie, the principle of diversity applies. It is advisable to make a water-based milkshake, as we also intend to keep the energy, protein, carbohydrate and fat content. The invented meal also contains fiber and vitamins, while the seeds used increase the supply of amino acids and useful fatty acids. This way, this snack suggestion provides a complex energy supply for the rest of the day until the main meal. The quantities of functional foods are vegetables (optional) 100 g, pistachios, almonds: 5-6 pieces in our recipe.

***Multi-seeded vegetable salad***



**Figure 6.** Multi-seeded vegetable salad (Own recipe)

Not only fruit-based, but also vegetable salads could be excellent alternatives for small meals to provide our body with fluids, vitamins and minerals. When choosing vegetables, it is worth paying attention to the principle of variety and following the quantitative requirements. It is also advisable to consume oil-seeds to keep the essential fatty acids, while maintaining the quantitative standards. By providing these in a variety of forms, the functionally active substances they contain can increase the stability of our nervous system and maintain our metabolic balance. The quantities of functional foods are vegetables (optional) 100 g, oil-seeds 7-8 pieces in our recipe.

### *Vegetable and fruit smoothie with herbs*



**Figure 7.** Vegetable and fruit smoothie with herbs  
(Own recipe)

One of the specialties of the reform kitchen is the mixture of different vegetables and fruits. The useful contents of the ingredients and their effects on the functioning of the body have been mentioned many times, but they could rarely be seen together in this form. The varied colour, taste and overall impression of the meal itself also influence the enjoyment, so always pay enough attention to its presentation. Herbs are commonly used in modern kitchen, not only to enhance enjoyment but also because of the useful ingredients they include. The beneficial effect attributed to green spices is mainly directed at the functioning of the immune system. The quantities of functional foods are vegetables (optional) 50 g, fruits (optional) 100 g in our recipe.

### *Raspberry cream with whole grain biscuits*

**Figure 8.** Raspberry cream with whole grain biscuits  
(Own recipe)

We recommend the consumption of raspberry cream in summer, when we can make it from fresh fruits. Kefir is an excellent alternative to supplement the protein content of the meal – to not to provide carbohydrates only for our body. By homogenizing kefir and raspberries, you can get a good quality paste and having some whole grain biscuits with it, you can raise enjoyment of your meal. The content of complex carbohydrate and high fiber of the biscuits contributes to the optimal need of 40 grams of fiber of human body daily. Besides the guarantee of the quality of ingredients, keeping the importance of appropriate quantities (5-5% daily) in mind is still very considerable. The quantities of functional foods are raspberry cream: raspberry 50 g, kefir 60 g, whole grain biscuits 4 x 5 g (approx.) in our recipe.

## **10. IDEAS FOR LUNCH**

Lunch accounts for 35% of daily meals being the most important source of nutrient intake of the day. Promoting variety, aesthetics and appropriate proper utilization are also very important factors to be kept in mind during the creation of this meal. For this reason, in this part of our manuscript, we also recommend soup- and side dish ideas for the reader. Each dish could be found in this article, has been made according to own recipes and concepts. We would like to use them to encourage everybody who are interested in functional foods and nutrition.

### *Garlic cream soup with wholemeal bread cubes*

**Figure 9.** Garlic cream soup with  
Whole meal bread cubes  
(Own recipe)

Garlic cream soup is also a significant part of the reform cuisine and its meals. Its immune-boosting effect is well-known, as well as the fact that eating this kind of food is an outstanding enjoyment. During the preparation, we cook the garlic and flavour it according to individual taste. Following the rules of healthy diet and modern cuisine, we enrich it with kefir. The creamy texture can be achieved by shaking the cooked soup, which makes it also suitable for serving. In addition to the active ingredients in cream soup, added wholegrain bread cubes can increase the nutrient content – especially the complex carbohydrates - of it. It is recommended to roast the wholemeal bread cubes using a small amount of olive oil to achieve the desired overall effect and enjoyment. The quantities of functional foods are garlic cream soup: garlic 4-5 cloves, kefir 40 g, wholemeal bread 40 g in our recipe.

#### ***Carrot cream soup with roasted pumpkin seeds***



**Figure 10.** Carrot cream soup with roasted pumpkin seeds (Own recipe)

Carrots can be used in many different ways in the kitchen and – thanks to the useful ingredients – they can be eaten raw as well. The physiologically active substance in carrot is called carotene, a precursor of vitamin A. Consuming it can maintain eye health. As a cream soup, completed using kefir again, it can be an excellent dish on our menu. Due to the high fiber content of pumpkin seeds, it increases the amount of ballast materials in the human body, thus reducing the risk of intestinal diseases. We recommend pumpkin seeds in roasted form. This kind of use of functional foods not only provides the body with useful nutritional values, but also enhances the enjoyment of

the meal. The quantities of functional foods are carrot cream soup: carrot 80 g, kefir 40 g, pumpkin seeds 10-15 pieces in our recipe.

#### ***Pineapple chicken breast with jasmine rice***



**Figure 11.** Pineapple chicken breast with jasmine rice (Own recipe)

The fat - protein ratio of chicken breast is the most favourable of animal proteins. The combination of chicken breast, pineapple and cheese has a unique delight in our main course. Thanks to its active ingredients, it is possible to produce ready-to-eat foods with complex nutritional values that are very useful for the human body. Jasmine rice is not only used to enhance oral enjoyment but also to supplement the level of different nutrients. Thanks to the carbohydrate content, it also regulates the physiological processes of the body. The level of blood glucose equilibrium highly depends on the physiologically active substance that the consumed functional food contains. This will prevent the symptoms of hypoglycemia. Do not forget to keep quantitative levels in mind when designing your menu. The quantities of functional foods are pineapple chicken breast: cheese (optional) 40 g, chicken breast 80 g, extra vergine olive oil 5 g, pineapple 50 g, jasmine rice 80 g in our recipe.

***Pork chop with cashew, spinach leaves  
and potato garnish***



**Figure 12.** Pork chop with cashew, spinach leaves and potato garnish  
(Own recipe)

Pork loin is not specifically a ready-to-eat food of the reform kitchen, but in accordance with the principles of healthy eating, it can only be consumed in moderation. Thanks to the full protein it contains, pork is well absorbed. Serves well with cashew, spinach leaves and potato garnish. The high starch content of potato provides energy, while spinach leaves and cashew give vitamins and beneficial fatty acids for the human body. These active ingredients contribute to a healthy and functional diet and help fulfilling the function of each other in a complex way. However, for people who live with chronic diseases the consumption of these foods is not - or only to a very limited extent - recommended. Keeping the appropriate intake levels of different foods cannot be emphasized enough because excess energy intake leads to obesity and diseases. The quantities of functional foods are pork chop with cashew: pork loin 80 g, cashew nuts 7-8 pieces, extra virgin oil 5 g, spinach leaves 100 g, potato 50 g in our recipe.

## 11. IDEAS FOR DINNER

Dinner is the second most important meal of the recommended five ones, means 25% of the total. In case of some illnesses - or people who want to lose weight - generally given rates may be varied. It is quite favourable to prepare these meals in a gentle way, to relieve our whole body and digestive system because doing so will greatly help to reduce the diseases associated with it.

***Vegetable salad with seeds and pomegranate in kefir  
sauce with a mini baguette***



**Figure 13.** Vegetable salad with seeds and pomegranate in kefir sauce with a mini baguette  
(Own recipe)

The combination of these special fruits and vegetables is not usual, but pomegranate is a good complement to vegetable salads. Using kefir sauce also increases nutritional enjoyment value, so the required complexity of our food could be achieved this way. For reaching the maximum nutrient intake, it is advisable to serve a complex carbohydrate source to the meal, which in this case can happen by adding a mini baguette. Functional foods consumed by the active ingredients in the main course of food can be beneficial to our body, thereby reducing the causes and incidence of many chronic conditions. When preparing this main course - that can easily be consumed during the summer months - it is important to fulfil not only the qualitative but also the quantitative requirements.

Therefore, in this case, it is recommended to use the nutrient table and scales, as well as to follow the rules of the quantities of the raw materials. The quantities of functional foods are vegetable salad with

seeds and pomegranate: pomegranate 100 g, vegetables (optional) 100 g, oily seeds (optional) 10 pieces, kefir 175 g, mini baguette 1 x 60 g (approx.) in our recipe.

***Egg cream with green herbs on seeded baguette with tomato***



**Figure 14.** Egg cream with green herbs on seeded baguette with tomato (Own recipe)

The consumption of egg yolk in green-spiced egg cream should be limited. The suggested amount is 2 to 3 pieces a week. The cause of this limitation is the high cholesterol content hence the cholesterol-raising effect of egg yolk. For this reason, in some cases related to different diseases, eating it is not recommended at all. To enhance the enjoyment, we enrich the cream with herbs. This may vary according to individual taste. To maximise enjoyment, we also serve seeded baguette with vegetables in the traditional way. The use of egg whites is not negligible, they are also fine ingredients for dinner dishes. In terms of functionality, eggs are very useful, just like other animal proteins. It is recommended to use a nutrient table to be able to maintain the optimal energy and macronutrient levels. The quantities of functional foods are eggs 2 x 45 g (approx.), seeded baguette 60 g, tomato 100 g in our recipe.

***Vegetables with mozzarella, seeds and a whole grain bun***



**Figure 15.** Vegetables with mozzarella, seeds and a whole grain bun (Own recipe)

Mozzarella is one of the most famous ingredients of Mediterranean cuisine therefore well suited to modern kitchen. Cheese is in great consonance with vegetables and seeds, while the combination of flavours raises the enjoyment of our food. To ensure proper quality and quantity of nutrients and to reach the needed complexity, we serve the planned food with a whole grain bun. Thus, our dinner has a satisfactory protein-, fat- and carbohydrate content that could be part of not only a healthy diet. Due to its ease of digestion and absorption, it is also a favourite for those who want to lose weight. To enhance the harmony of taste, we recommend using herbs like basil. The quantities of functional foods are mozzarella 40 g, vegetables (optional) 200 g, oily seeds, (optional): 10 pieces, whole grain bun: 1 x 80 g (approx.) in our recipe.

### ***Fish salad with vegetables and wholemeal bread***



**Figure 16.** Fish salad with vegetables and wholemeal bread (Own recipe)

It is advisable to consume the great number of existing species of fish and using the several cooking methods to prepare them. At international level, fish are mostly consumed near seas and oceans as a supplement to the Mediterranean diet. Consuming fish has many beneficial effects on our body, thanks to the previously mentioned active ingredients. That is why it is advantageous to include fish in the planned menu several times a week. Vegetables fit well with the meal and add to the enjoyment. The seasoning can be changed according to individual taste. It is advisable to pay attention to the amount of food set up in the meal in our plan. As a supplement to the fish, which is rich in protein, we would choose wholemeal bread. This way, the meal offered is complex enough as it contains all the nutrient sources. They have excellent utilization, too. The quantities of functional foods are fish (optional) 80 g, vegetables (optional) 100 g, wholemeal bread 80 g in our recipe.

In addition to the above proper health and safety measures as well as clean technologies should exist for the good environmental health and safe environment at indoor and outdoor working space for the production of gastronomic goods. Proper health – safety measures, standards, quality assurance, sustainable designs,

renewable resources projects and monitoring systems should exist providing opportunities to stakeholders, vocational educational training for food security, safety, food quality, mitigation of risks from chemical hazards, remediation projects, energy saving, nutrition protection, promotion of sustainable gastronomic health tourism services within sport tourism facilities for all and public health protection in post COVID-19 era (Koliopoulos et al. 2020a, 2020b; 2019; Neratzis et al. 2018; Papakonstantinou et al. 2019, 2018).

## **4. CONCLUSIONS**

The purpose of our review is to provide researchers with professional material that could help them master the scientific foundations of functional foods, physical activity, mental balance and nutrition creatively. That's why we prepared and presented dishes as well.

These foods contain physiologically active ingredients such as omega 3 fatty acids, unsaturated fatty acids, vitamins, minerals, complex protein, pro and prebiotics, complex carbohydrates and fiber. Nutrition contributes 70% to well-being, so it is important to have a qualitative and quantitative intake of food into the human body. In addition, we are on a path to total well-being through 30% physical activity. By acquiring the information about the qualities of functional foods, learning about modern cooking technologies and mastering good cooking practices, the researchers will gain knowledge that they can use in the future. Thanks to this acquaintance and its incorporation into everyday life, the probability of getting many chronic diseases could be reduced. Furthermore, food security issues should be taken into account in terms of sustainability and public health protection in post COVID-19 era.

In the end authors hope that their review will form the basis of many useful scientific work and will enrich the contents of scientific dissertations as well.

## **ACKNOWLEDGEMENT**

The authors are very thankful to Prof. Dr. R.K.Narayan for going through the manuscript.

## **AUTHOR'S CONTRIBUTION**

All the authors contributed equally. They read the final version, and approved it for the publication.

## **CONFLICT OF INTEREST**

The authors declare that they do not have conflict of interest.

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## **SOURCE OF FINANCIAL GRANT**

There was no financial support.

## **CONFLICT OF INTEREST**

The authors declare that there is no conflict of interest between them.

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