

IS SUPPLEMENTATION NECESSARY FOR SPORTS?

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REVIEW ARTICLE

Abstract

Thanks to the rise of social media and prosperity, more and more people are taking up various sports, which in many cases involves the use of dietary supplements. But are these sports supplements necessary for sporting individuals? In this study we will try to address this issue.

Dietary supplements are a group of products that contain a nutrient in a concentrated form. We can think of the most common protein fortified products, such as protein powders, protein bars and other various snacks. Various dietary supplements promising fat burning, performance enhancing or other positive effects also fall into this category. Of course, these dietary supplements are not intended to replace a varied and balanced diet, so they can only be used, as the name suggests, to supplement our meals. And if we have a well-balanced diet, is it necessary to use these products? Well, what we can say, based on our research, is that it is primarily recommended that we actually take in the nutrients we need at mealtimes; from macronutrients to micronutrients. However, if someone is not getting enough nutrients from a balanced diet, then supplementation may be necessary. Such factors may include, for example, if a person participates in elite sport or other physical activity at a high level, and when considering the intake of nutrients needed, we also need to consider what the individual sports person prefers, so if there is a nutrient-rich food that they should be eating that they do not like, or if the food would result in a significant energy surplus, then we should consider supplementation.

Keywords: *sport, nutrition, food supplement, dietary supplement, consumption*

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INTRODUCTION

In today's consumer society, dietary supplements are becoming increasingly popular. One of the reasons for this is that the spread of the internet and social media has made it possible for more and more people to use these products. It is also noteworthy that there is a growing awareness of their purchase, health consciousness and the whole 'well-being' phenomenon. With the growth of gyms, there has been a corresponding increase in the use of sports supplements. Manufacturers and distributors use various marketing tools to lure their customers, highlighting the benefits of their products. In the present study, we seek to answer the question: is supplementation really necessary for sportsmen and sportswomen, or is the whole supplement business only thanks to the marketing of the manufacturers?

MATERIAL AND METHOD

The present research is a literary research based on literature sources. The aim of the study was to find relevant literature on the

subject in order to inform the reader as widely as possible about the conditions of use of dietary supplements.

LITERATURE REVIEW

According to EU rules, foods that contain concentrated forms of various nutrients or other substances with a nutritional effect can be called food supplements. They can be found in powder, liquid or capsule form (europa.eu, 2024).

It should be noted that dietary supplements are not medicines, which are used to prevent or treat various diseases. They can only be placed on the market after specific authorisation by the authorities. In contrast, in the case of food supplements, only the manufacturer or distributor is responsible and is required to check the quality and safety of the food (portal.nebih.gov.hu, 2024).

According to the National Food Chain Safety Office's Dietary Supplement Guide, it is recommended to take supplements if you are following a special diet or if your body is under heavy stress. When consuming this product, it is

good to know the Upper Level, which is the highest level of safety, and the Nutrient Reference Values, which are the recommended daily intakes of minerals and vitamins (portal.nebih.gov.hu, 2024) (Fabulya et al., 2015).

In her book, Gabriella Silye mentions that the increased demand from the food industry has resulted in soil depletion due to the use of chemicals in agriculture. As a result, many of the minerals in the soil are being absorbed by plants in smaller quantities. Several studies confirm the depletion of nutrients in food (Silye, 2019).

If we eat a healthy diet, we can provide our bodies with the vitamins and trace elements they need. However, it is important to consider which foods we prefer to eat and check that we are providing our body with the daily requirements (Rigó, Gyurcsáné, 2006).

The number of personal trainers, the number of supplement shops is increasing and gyms are becoming more and more popular due to their visibility in urban environments, commercial images, increasing gym attendance (Honfi et al., 2009). It can therefore be said that more and more people are trying the path towards a healthy lifestyle (Gyimes, 2023) (Lendvai, 2022). Along with this, the market for sports supplements is also growing (Panyor, Hipszki, 2022) (Szabad et al., 2021). Their consumption is also becoming more prevalent among younger age groups. In addition to athletes, even young children are increasingly taking vitamin and mineral supplements (Liska et al., 2021). Gabriella Silye also says that athletes often use supplements according to the fashion of the day, so they are not used properly. However, too high an intake can also have negative effects on their performance (Silye, 2019). Researchers are trying to find many ways to produce plants and ingredients with higher protein content. A lot of genetic experiments are being conducted to create high-lysine, high-protein cereals. One such experiment has resulted in the development of triticale. This is a cross between wheat and rye. Soy protein is also relatively high in protein, with a relatively recently discovered oilseed as the raw material. There have also been significant breakthroughs in the various proteins produced by microorganisms. Noteworthy are the *Candida* strains, which are capable of producing L-lysine, L-threonine, L-tryptophan, L-isoleucine during fermentation. It can also produce DL-methionine by chemical

means. When mixed with plant proteins, their biological value can be increased (Csapó et al., 2006).

A comprehensive study in 2019 looked at how athletic athletes who use supplements to optimise and enhance performance perform in sport. The researchers concluded that sports foods and supplements that athletes should use are those with evidence that they are safe, legal to use and effective. Peeling also suggests that it is worth testing the effects of a particular supplement on the athlete early on to ensure that no one is caught by any negative surprises during the preparation for competition (Peeling et al., 2019).

And a study in 2022 examined whether supplementation is really necessary or whether it is sufficient to get the necessary nutrition into athletes' bodies through food. Close concluded that it is not always necessary to use food to get the nutrients our body needs, as there are cases where it is better to use supplements. To avoid the use of inadmissible performance enhancers, they, like the Peelings, recommend that nutrients should be primarily provided through food. They also accept that there are some nutrients whose health and performance-enhancing effects suggest that they should be taken in through the use of supplements (Close et al., 2022).

RESULTS AND DISCUSSIONS

The market for the use of nutritional supplements is growing. The various manufacturers and distributors are trying to influence consumer choices on an ever wider scale. Therefore, the aim of this research is to find out whether consumers need to take supplements.

Overall, we can say that, as the labelling of dietary supplements suggests, they are not a substitute for a balanced diet, but can be used to supplement our meals. In particular, it is advisable for sportsmen and sportswomen to consume macronutrients, such as protein, carbohydrates and fats, and micronutrients, which are vitamins and minerals, as part of their diet.

We can talk about different cases where supplementation is really necessary. Here we have to take into account factors such as the food preferences of the individual athlete, because if he or she has to eat a food that contains a higher level of a particular micronutrient or macronutrient, we cannot

force that individual to eat a product that he or athlete would have to consume a food that is too high in calories to provide a particular macronutrient. Many sports are known where weight classes are set up for competition, so it is necessary to pay attention to the appropriate caloric intake when designing the diet. So, first of all, a balanced, varied diet rich in vitamins and minerals should be followed, and if, due to the high physical activity of the athletes, it is not possible to achieve the right quantity and quality of nutrients naturally, with a caloric intake tailored to the individual, then it is worth using sports supplements.

CONCLUSIONS

A balanced, well-balanced diet is something we should follow when we eat. Many vegetables, fruits, pulses, seeds and various grains are rich in vitamins and minerals. These are the main ingredients to include in your diet.

Of course, depending on their training goals, individuals in sport may need supplementation in addition to a well-formulated diet. It is therefore a good idea to have a well-constructed diet and to use various dietary supplements according to your training goals.

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she does not like. The same is true when an

As the market for dietary supplements is growing and their use is becoming more widespread, it is worth exploring this topic in more depth in the following sections. In addition to literature research, it is worthwhile to carry out as much qualitative and quantitative research as possible. We ourselves are carrying out practical research of this kind on the subject. We would like to gain a better understanding of consumers' preferences, their motivations and the circumstances under which they make their purchasing decisions.

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