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Dietary supplements, do we need them?

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Abstract
This paper aims to throw some light on the dietary supplements which have flooded the market these days. Food supplements are concentrated sources of nutrients, vitamins or other substances with a nutritional or physiological effect, whose purpose is to enhance the normal diet. It also focuses on their types and needs according to requirement. It also has kept the changing lifestyle and changing dietary needs in consideration.

Keywords: dietary supplements, food, anti oxidants, lifestyle, nutrition and health

Introduction
Supplements come under many names, 'dietary supplements', 'functional foods', 'ergogenic aids' and 'sports supplements' to name a few. According to the Oxford Dictionary, a supplement is "something added to supply a deficiency", but consumers take supplements for many different reasons, though usually in the expectation that a health or performance benefit will result. It is important to recognise, though that current regulations do not require manufacturers to provide evidence of efficacy.

Sports Foods
The use of sports foods can help active individuals with busy lives to meet their sport nutrition goals. They come in a variety of forms, such as drinks, powders, bars and gels and are portable, practical and convenient to take before, during and after workouts and are often used by athletes in the period around competition.

Fortified Foods
Many foods are enriched with specific vitamins and minerals during manufacture. Examples include breakfast cereals, which are have added iron and B vitamins (usually at about 20-50% of RDA per serving) and dairy produce, with is often fortified with vitamin D. These can be a useful source of nutrients in the diet.

Supplements for health
Various vitamin and mineral supplements can be bought over the counter, but there is no scientific evidence to support their use to enhance performance by athletes who eat a varied diet in amounts sufficient to meet their energy needs. There is some evidence to support their use by athletes who have a diagnosed deficiency: short-term supplementation with vitamin D, iron or calcium for example may be useful in cases where a deficiency has been diagnosed. In the longer term, though, dietary solutions should be successful. It is important to remember that more is not always better: iron is a good example, as excess iron is toxic and harmful to health. Supplementation may also be warranted where there is severe restriction of food choice available or during periods of calorie restriction to achieve weight loss. Immune system supplements are widely used, but there is no strong evidence of benefits for healthy individuals. Weight loss supplements are best avoided: most are not effective and those that are, often contain stimulants that may be harmful.

Fish Oils
The evidence that athletes and those involved in regular exercise will benefit from taking fish oil supplements (a good source of essential fatty acids) is insufficient to make any specific recommendations but there is some evidence that it may be benefice to those individuals who suffer from exercise induced bronchoconstriction

Antioxidants
Antioxidants play a key role in the body's natural defences against free radicals. Free radicals harm cells and may contribute to muscle soreness after exercise and have also been linked to the increased risk of some diseases. Eating at least 5 portions of fruit and vegetables a day should be sufficient. The deeper the colour of the fruit or vegetable the higher the antioxidant content of that item. The use of high doses of single antioxidants is generally discouraged as they may do more harm than good.

Supplements for performance
Of the many thousands of supplements on sale to athletes and fitness enthusiasts, only a handful are supported by evidence of efficacy and safely. Anyone contemplating the use of a dietary of a dietary supplement should seek advice from a qualified sports dietician or sports nutritionist.
Caffeine is perhaps the most widely used stimulant in the world and it can help improve both physical and mental performance. Even small doses (about 1-3 mg per kg of body weight) such as those found in a cup of coffee or a couple of cans of cola can be effective. High does, such as are sometimes found in "energy" tablets and drinks are not a good

idea, especially late in the day when they can make it difficult to fall asleep.

Creatine supplements are widely used by athletes in strength and power events. Creatine phosphate is an essential energy source for high intensity exercise and is stored in high amounts in muscle. Eating muscle (meat, poultry, and fish) provides about 1 gram of creatine in the diet each day and the body can synthesise some from amino acids. Taking higher amounts (3-5 grams per day) in the form of supplements can increase muscle creatine phosphate stores and cab lead to gains in muscle mass, power output and especially in speed of recovery between repeated sprints. There are no reports of adverse events if creatine is used in accordance with recommendations. Buffering agents (bicarbonate and D – alanine) are used by athletes in high intensity events where lactic acid production rates are high and where acidity in the muscle can contribute to fatigue. These are typically events lasting about 1-10 minutes, so there is probably no role for these supplements in those who exercise for health or fitness.

Risks and Rewards of supplement use

There are many risks due to the presence on the market of poorly regulated supplements. Some contain toxic doses of heavy metals and some contain biological contaminants that can cause severe gastrointestinal problems. Some slimming products contain banned pharmaceuticals, even though the packaging states that only natural ingredients are present.

Conclusion

Food supplements are concentrated sources of nutrients, vitamins or other substances with a nutritional or physiological effect, whose purpose is to enhance the normal diet. Supplements may be used to correct nutritional deficiencies or maintain an adequate intake of certain nutrients. However, in some cases excessive intake of vitamins and minerals may be harmful and may cause unwanted side effects; therefore, maximum levels are necessary to ensure their safe use in food supplements. For being on the safer side ne should take advice from his/her doctor if one thinks he/she is not getting enough vitamins and minerals in his/her diet. They can help one decide which micronutrients is needed. They also can recommend a dietary supplement. This will depend on your overall health and lifestyle.

References

1. http://www.bda,uk.com/foodfacts/sportsfoodfacts.pdf
2. National Institutes of Health Office of Dietary Supplements, Dietary Supplements
3. Food and Drug Administration, Dietary Supplements
4. Food and Drug Administration, FDA 101: Dietary Supplements