

Editorial

Energy Drinks : Physiologists' Social Concern

Now a days, the consumption of functional foods is on the rise to impart additional positive physiological effects. They are available in many forms like antioxidants, minerals, stimulants, energy, vitamins, dietary fiber etc. Their proponents claim multi-purpose use like enhancing general health effects, concentrated dose, disease specific claims, improving cognitive abilities, muscle strengths, mind stimulants for better performance etc.

I would like to draw attention towards the so called “energy drinks” and “energy shots”. The consumption of these drinks is in fashion and it has become a status symbol too. This is probably due to simple (mis)understanding that energy drinks have instant positive physiological effects on several parameters. These energy drinks are different from other beverages in the sense that when a young person needs them for energy, he needs a lot and he needs them quite frequently. This desire to have more combined with poor knowledge about the adequacy of consumption result in overdosing. According to a recent newspaper report the overdosing of energy drink led to a teenager falling seriously ill, developing kidney failure and subsequently he had to be hospitalized and put on artificial ventilation (1).

The larger question still remains: Are these energy drinks worth the claim ? Current research published in IJPP in the last issue (Goel et al 2014) is an eye opener (2). The authors have shown that in a regular dose, the energy drinks are in no way different from regular isocaloric drinks in terms of physiologic benefits. Not only this, there are several other reports on harmful effects of energy drinks (3). The evidence put forth clearly suggests serious lacking of Physiology Education among teenagers/parents/society. Energy drinks appear to be a misnomer in the sense that most of them contain caffeine as main ingredient and sometimes some additional ingredients to create a blend. To a layperson it gives false impression that it is better for energy, although any sugary drink will illicit the same physiological response. It would be wise to discourage the use of catchy names given to these drinks which neither enhance energy levels nor stimulate cognitive functions beyond sugary drinks. Therefore, there is a need to change the nomenclature of these category of drinks to sound more appropriate. As of now it appears there are no regulations regarding these issues. Our Food Safety and Standards Authority of India (FSSAI) must do something in this regard. Among several mandates of FSSAI, the following mandate is important with reference to the current context. One of the mandates is: “To collect and collate data regarding food consumption, incidence and prevalence of biological risk, contaminants in food, residues of various contaminants in foods products, identification of emerging risks and introduction of rapid alert system” (4).

The question still remains who is going to advise FSSAI about physiological implications of functional foods. Therefore, regulations of foods standards and safety (when there are high industry and commercial stakes) require a concurrence among academicians, regulators, industry and media. Such concurrence is needed to balance the overdoing by any one of the components. There is a need to develop nutritional standard based on research and implement them seriously. The information about composition, dosage for various ages and the physiologic benefits must be made available in public domain and on the product.

Physiologists, pharmacologists and Nutritional scientists have contributed to the understanding of mechanisms and application of nutrients and food supplements. They need to further expand the in-depth research to verify the tall claims of large number of functional foods visible in media. The experts should write in-depth

reviews after meta-analysis in the field and should create consensus statement or position statement. One such position statement for the purpose of athletes and sportspersons is available in literature (5). The media should focus on these issues and should invite physiologists/pharmacologists as experts to express their opinion about relevant research findings and knowledge. They should be a part of the decision making wherever the academic knowledge is required. The research on nutritional supplements should be treated like pharmaceutical research, as the consequences of nutritional supplements do have effects beyond physiology in terms of both positive or negative effects. Thus, it is the social responsibility of physiologists, pharmacologists and nutritional experts to widen the knowledge base in the field to create consensus statements, and social awareness of the knowledge in the field.

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References

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