



## Management of Sport nutrition in Physical education classes – mental development of higher secondary school students in India

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**Abstract:** A drive towards providing enough energy and nutrients to meet the demands of training and exercise to all sports person needs a clean chalked out preparation. Enhancing adaptation and recovery strategies between training sessions to players are needed as each player has to measure his nutrition levels individually. Nutrition is directly linked with performances ratio. Nutrition affects mental concentration level, alertness, physical performances etc. Under nutrition & mal nutrition affects muscular strength, blood levels to the skin, sweating & body cooling rates. Under nutrition enhances the pressures on cardio vascular activity which reduces body working the & chances of heat injuries. Each sport organization each sport management groups has to consider providing adequate fluids to ensure maximum hydration before, during and after exercise to each player customarily. In promoting the short and long-term health of athletes, a regular & periodical health guidance is required.

**Keywords:** Sport nutrition, Physical education, mental development, higher secondary school students challenges of nutrition

### Introduction:

Total enrollment in secondary education, regardless of age, expressed as a percentage of the population of official secondary education age. (John Ivy-nutrition timing – the future of sports nutrition 2014). GER can exceed 100% due to the inclusion of over-aged and under-aged students because of early or late school entrance and grade repetition. (UNESCO Institute for Statistics on mal nutrition 2014). Malnutrition undermines human capital and economic productivity and can limit progress in achieving at least 6 of the 8 Millennium Development Goals and the World Health Assembly targets. Given its significant population, making progress on reducing stunting in India is

necessary to achieve global targets to reduce malnutrition worldwide.

### The nutrition specific policies in India

1. The Food security Bill 2013
2. The guidelines for enhancing young child feeding practices - 2013
3. The Infant food act 2004
4. The national rural health Mission 2007

Infectious disease efforts, for example, supporting efforts to expand immunization coverage, expand deworming among children and pregnant women, expand malaria prevention and treatment among pregnant women and young children for anemia reduction, expand coverage of vitamin A capsule distribution, and expand micronutrient



supplementation. there are several researches on Expanding technical assistance and support to improve water and sanitation.

1. Supporting and expanding access to micronutrient supplements and fortified foods to secondary school children
2. Opportunities to support the Government supporting nutrition advocacy at the national and state levels in partnership with local civil society partners (such as the Right to Food Movement and Citizen Alliance against Malnutrition) to strengthen national and state level multi sectoral coordination and nutrition service delivery, and augment accountability and governance for nutrition Continued support for quality and regular national data collection (e.g., National Family Health Surveys/DHS) that includes globally-recommended nutrition
3. Advocating a wide variety of foods like wholegrain breads and cereals, vegetables particularly leafy green varieties, fruit, lean meat and low-fat dairy products to enhance long term nutrition habits and behaviors. Enable the athlete to achieve optimal body weight and body fat levels for exhibiting consistency in all his performances needs a good strategy of nutrition level management.
4. Each sport organization each sport management groups has to consider providing adequate fluids to ensure maximum

hydration before, during and after exercise to each player customarily. In promoting the short and long-term health of athletes , a regular & periodical health guidance is required. ( John Ivy- nutrition timing – the future of sports nutrition 2014).

**Nutrition through water** -Water is the best option for sports persons specially school children when it comes to nutrition. Most of the sports drinks contain electrolytes. Gatorade a popular sports drink is recommended because it contains electrolytes which water do not contain. There are a series o f researches going on with the regard to sports drinks &sports nutrition supplement products. Electrolytes have to be replaced but sports players her dehydrated while they exercise or perform or while they work out .athletes need more protein than ordinary people different types of athletes need different types of proteins &different amounts of proteins. For instance, a body builder might need more protein than a marathon runner, but both need more than your typical couch potato. It's best to get the protein you need from a healthy diet, but athletes will often turn to other products to help support their needs, especially if they are looking to build muscle mass.

**Poisonous substances** : Some of the sports supplements contain arsenic, cadmium, lead, and mercury which are harmful & leave toxic effects on several organs in the body .Sometimes athletes are recommended to take protein shakes



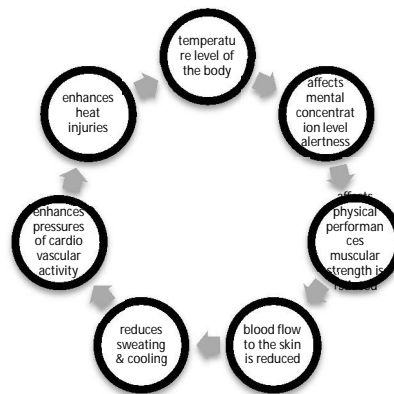
as a way to help them lose weight or gain stamina. They drink the shake as a meal replacement thinking they are consuming fewer calories. But if that protein shake gives them more protein than their body requires, they may gain weight instead of decreasing their weight or extra calories. Nutrition experts opine that the body can only use 5 to 9 grams of protein per hour.

**Sugar level in sports drinks** -sports drinks normally contain very high sugars sometimes they go beyond the sugary levels & this is a dangerous situation as heavy sugar intake is harmful to athletes & sports persons.

**The effects of dehydration in athletes-**

The dehydration affect athlete's performance levels Fluid needs are linked to energy expenditure. temperature level of the body as shown in the chart below.

1. affects mental concentration level alertness
2. affects physical performances muscular strength is reduced
3. blood flow to the skin is reduced
4. reduces sweating & cooling
5. enhances pressures of cardio vascular activity
6. enhances the chances of heat injuries



**Sports nutrition needs-** a drive towards providing enough energy and nutrients to meet the demands of training and exercise to all secondary school children needs a clean chalked out plan. Enhancing adaptation and recovery strategies between training sessions to players is needed each player has to measure his nutrition levels individually. Including a wide variety of foods like wholegrain breads and cereals, vegetables (particularly leafy green

varieties), fruit, lean meat and low-fat dairy products to enhance long term nutrition habits and behaviors Enable the athlete to achieve optimal body weight and body fat levels for exhibiting consistency in all his performances needs a good strategy of nutrition level management. Each sport organization each sport management groups has to consider providing adequate fluids to ensure maximum hydration before, during and after exercise to each player customarily. In promoting the short and



long-term health of athletes regular & periodical health guidance is required. . Body mass index (BMI) , Dietary reference Value (DRV) , Estimated average requirement (EAR) , Reference nutrient intake (RNI) are inter linked to nutrition level.

**Considerations-** There is a need augment the nutrition enhancement awareness programs in the community as there is a need to strengthen the community about the awareness issues . Investing in community level nutritious service delivery & strengthening the community health working skills particulars in ICDS is very important. At the same time there is a need to fund quality improvement nutrition service delivery mechanisms which is very important to improve Investing in nutrition life cycle approach is also very imperative as sports persons need consistency in sports performances . A nutrition policy fully focused on improving adolescents nutrition is very important. Malnutrition undermines human capital and economic productivity and can limit progress in achieving at least 6 of the 8 Millennium Development Goals and the World Health Assembly targets. Given its significant population, making progress on reducing stunting in India is necessary to achieve global targets to reduce malnutrition worldwide.

**Conclusion-** Thus a drive towards providing enough energy and nutrients to meet the demands of training and exercise to all sports person needs a clean chalked out preparation. Enhancing adaptation and recovery strategies between training sessions to secondary school children are needed to be addressed. Each student has to measure

his nutrition levels individually through good strategy endorsed by the a school authorities. Nutrition is directly linked with performances ratio. Nutrition affects mental concentration level of all ages of school children. Each sport organization , each sport management group, has to consider providing adequate nutrients & fluids to ensure maximum hydration before, during and after exercise to each player / child customarily. In promoting the short and long-term health of futuristic athletes , a regular & periodical health guidance is required.

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