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## Nutritional Requirement for a Healthy and Successful Athlete

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### **Abstract**

**T**his paper presents the important of different nutrients and sources of nutrients for a healthy and efficient athlete. Nutrition plays a very important role in attaining high level of achievements in sports. Nutritional status has a direct bearing on the level of physical performance. Hence, physical fitness and training are very much dependent on nutritional status of sports personnel.

### **Introduction**

**N**utrition is an important component of any physical fitness program. The main dietary goal for active individuals is to obtain adequate nutrition to optimize health fitness and to increase sports performance. It is vital to educate the sportsmen and accustom them to dietary pattern in different regions of India and abroad. This paper presents the important of different nutrients and sources of nutrients for a healthy and efficient athlete.

### **Proteins**

**A**thletes need more protein than the usual teen, but it is a myth that large amount of protein needs to be consumed to develop large muscles. Protein requirement has to be upped from 0.8 gm per kg of one's body weight to 1.2 gm for certain events. For Indian athletes, up to 2 gm is recommended. Good sources of protein are milk and milk products, lean meat, eggs, nuts, dry beans, pulses. Eggs provide a high level of protein with high biological value. Sports performance requires a high-performance muscle. However, white meat, like chicken, promotes muscle development, maintains our muscles and participates in recovery. Chicken contains proteins of good nutritional quality with an excellent amino acid content, hence its interest in sports performance. Hence, sportsmen should be aware of the role of protein in muscle building.

### **Carbohydrates**

**C**arbohydrates are essential for athletes, especially endurance athletes. They provide excellent fuel. So restricting carbohydrate intake can lead to fatigue and poor performance. It is essential to consume complex carbohydrates as they give energy, fiber and other nutrients. Good sources of these include whole grains, vegetables, beans, etc.

Oatmeal is appreciated for the amount of carbohydrate provided (60 g per 100 g). Bananas can be taken everywhere and consumed in no time at all, making them one of the sportsmen's favourites. Easy to eat, it is useful to boost, provide quality carbohydrates before exercise or prepare

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for recovery in post-training. Raisins provide energy to the athlete with these 75 g carbohydrates per 100 g. About 55 percent of the energy should come from carbohydrates. Carbohydrate was reported to be the concentrated source of energy followed by protein and fat.

### Fat

Everyone needs a certain amount of fat each day, and this is particularly true for athletes. Healthy fats, i.e. unsaturated fats should be consumed which can be derived from vegetable oils, fish and nuts. Saturated fats present in high fat meats and high fat dairy should be avoided. Generally, it is recommended to consume 1 g of fat per kilo of body weight. To meet its needs, oilseeds are all available, especially as snacks. Fatty foods can slow down digestion, so they should not be eaten just before and soon after exercise.

### Vitamins and Minerals

Calcium helps build strong bones for sports and reduces risk of fractures. Iron carries oxygen to muscles. Eating a diet rich in fruits, vegetables, dairy and nuts will provide

these nutrients in an adequate quantity.

The runners should have better knowledge about the role of vitamins and minerals and were able to list the sources of iron, calcium, vitamin A and vitamin C and the protective effects of fruits and vegetables.

### Conclusion

Physical fitness and training are very much dependent on nutritional status of sports personnel. Hence following the better nutritional plan helps the athlete in maintaining the physical and mental health during their sports.

### References

- Beals, K.A., Manore, M.M., 1998. Nutritional status of female athletes with subclinical eating disorders. *J. Am. Diet Assoc.*, 98, 419–25.
- Cedric, J., 2017. 10 key foods to improve your athletic performance. *Sport Passion - Advice and training tips*.