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Protein deficiency, physical activity research and interventions with older adult's perspectives and issues

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Abstract

Indian population is often complained of consuming more starch & fat in place of proteins. India is considered as a protein deficient nation where 80% of the people are facing health problems form protein deficiency . the situation was so grim that both vegetarians & non vegetarians suffer from protein deficiency . Proteins are fundamentally required for all types of sporting events. As the energy nutrients before, during & after the exercise is lost substantially they need lot more planning in their dietary tables to project consistent performances. But heavy intake of proteins rich food is not only costs dearly, it also influences his performances through several negative effects. It might leave a negative impact on kidney functions. Body mass Index might turn inconsistent with heavy fat rich proteins food. He might gain weight which impacts his performances. A consistent lack of cereals fruits vegetables & focusing mainly on protein food causes imbalance in body metabolism. Thus a well planned nutritious diet meeting the athlete's mineral & vitamin needs is required ,But this is challenges by various factors.

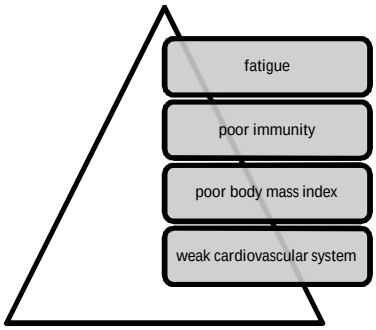
Key words *: Protein deficiency , physical activity research , interventions , older adult's perspectives and issues.*

Introduction- Protein is an essential part of the young athlete's diet, and the role of protein for youth includes building, maintaining, and repairing muscle and other body tissues. It should be noted that an adequate protein intake with inadequate caloric intake prohibits protein balance, even when the recommended daily allowance for protein is consumed. Therefore, it is critical that young athletes consume enough calories to maintain body weight.

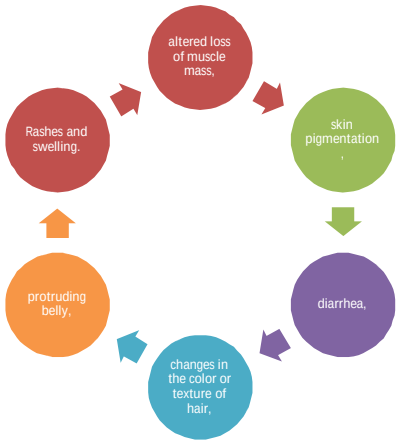
All athletes strive to compete at the top of their game but, their performance relies on their nutritional status. Nutrition experts say that young athletes with inadequate protein diets may have insufficient fuel for workouts, nutrient deficiencies that can lead to illness or fatigue, a decrement in bone growth and maintenance, and may not reach their potential for muscle growth. (Nancy Clarke- sports nutrition guidebook 5th edition 2014).

All of these will be reflected in their performance, regardless of their determination. Despite the recognition that young athletes need to pay greater attention to their fuel consumption, recent research suggests that many youths struggle with energy balance, experiencing an energy deficit or surplus. The concern is that many young athletes require greater amounts of nutrients but remain uninformed or unconcerned about their nutrition needs or simply feel powerless to improve their nutritional status. (Nancy Clarke- sports nutrition guidebook 5th edition 2014). As shown in

the chart(1) there are several problems with protein less diet for athlete .



Physical symptoms of protein deficiency include

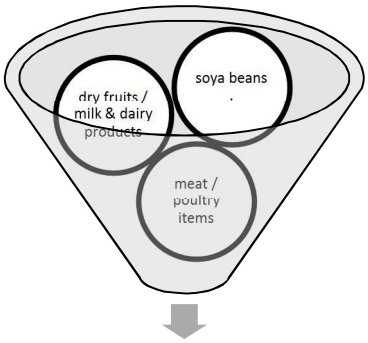


Proteins are found in both vegetarian & non vegetarian food .Sports People with protein deficiency also experience

1. fatigue,
2. lethargy,
3. irritability
4. Droopiness.

Children with protein deficiency fail to meet benchmark for weight and growth, giving them a wasted appearance. protein deficiency during childhood causes developmental delays. Protein deficient children never reach adult size and may experience mild mental retardation, digestive problems or pancreatic disorders. A prolonged period of protein deficiency causes your immune system to become weakened. As a result, children and adults with protein deficiency succumb more easily to infections. People with severe protein deficiency eventually go into shock and may die Protein deficiency can be met with soya beans , dry fruits , meat & poultry items , milk & dairy products are rich in proteins. Soybeans are rich in nutrients. However,

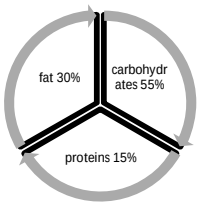
the macronutrient profile of soybeans differs in some important ways from most other legumes. Soybeans are higher in both protein and fat than other beans and are relatively low in carbohydrates. Consumption of soy protein has been linked with a modest decrease in cholesterol levels. (as shown in this chart)



Hence basic diet of a sports person should be sufficient to:

1. Provide enough energy and nutrients to meet the demands of training and exercise
2. Enhance adaptation and recovery between training sessions
3. Include 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
4. Enable the athlete to achieve optimal body weight and body fat levels for performance
5. Provide adequate fluids to ensure maximum hydration before, during and after exercise
6. Promote the short and long-term health of athletes.

The researches have shown that children and adults with protein deficiency succumb more easily to infections. Children and adults with severe protein deficiency eventually go into shock and may die young. Protein deficiency can be met with soya beans, dry fruits , meat & poultry items , milk & dairy products are rich in proteins. Soybeans are rich in nutrients. children and adults with nutrition deficiency can be made aware of the health issues in a special ways. As shown in this chart (4) an athlete needs following % of the diet to stay fit & fine.



The sports persons engage in following types of activities

1. light intensity exercise
2. moderate exercise
3. endurance exercise
4. extreme endurance exercises

All these activities need a customary, consistent % reliable follow-up in dietary habits. There are several medicated efforts to reduce severities of proteins deficiency. Protein deficiency can be treated if it is diagnosed in early stages. Although children with protein deficiency will not grow to complete size, their other medical symptoms will likely improve with treatment. Treatment begins by feeding the protein-deficient person foods rich in carbohydrates and fats. After overall caloric consumption increases, the individual should be introduced to protein-rich foods. If protein intake is too low, incorporate more protein into diet by eating peanut butter, lean meat, beans, soya products, nonfat dairy products, nuts and seeds will be recommended . Periodical consultation & regular sittings with a dietician , pediatrician , doctor , about potential risk of becoming deficient in protein or other nutrients before beginning a vegetarian diet. (Kimberly Mueller -the athlete's guide to sports supplements 2013).

An integrated policy providing enough energy and nutrients to meet the demands of the sports persons during & after the intensive training and exercise sessions has to be planned . This policy should enhance adaptation and recovery between training sessions / important events / major games . A capacity building programs through AV methods have to be included in the curriculum with stress on 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 performance also need proper strategy making . each Individual's body nutrition requirements are different hence providing adequate fluids to ensure maximum hydration before, during and after exercise & promote the short and long-term health of athletes needs to be addressed. .(Kimberly Mueller -the athlete's guide to sports supplements 2013).

Conclusion- Proteins are fundamentally required for all type of sporting persons. As the energy nutrients before, during & after the exercise is lost substantially they need lot more planning in their dietary tables to project consistent performances. But heavy intake of proteins rich food is not only costs dearly, it also influences his performances through several negative effects. It might leave a negative impact on kidney functions. Body mass Index might turn inconsistent with heavy fat rich proteins food. He might gain weight which impacts his performances. A consistent

lack of cereals fruits vegetables & focusing mainly on protein food causes imbalance in body metabolism. Thus a well planned strategy nutritious diet meeting the athlete's mineral & vitamin needs is required.

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