



# **TRINITY COLLEGE FOR WOMEN NAMAKKAL**

**DEPARTMENT OF NUTRITION & DIETETICS**

**EVEN SEMESTER**

**NUTRITION FOR SPORTS AND FITNESS**

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# NUTRITION SUPPLEMENTS

# INTRODUCTION

Supplements are essential additions to diet (in the form of pills, powders, liquids, etc.) that improve overall nutrition, reduce nutritional deficiencies, and enhance day-to-day health and sports performance. As the name suggests it supplements a good diet and becomes important because in today's fast-paced world, it is often difficult for many people and sportspersons to consume the ideal quality and quantity of nutrients through food alone especially if one is ill, into vigorous exercise or **sport**.

# NUTRITION SUPPLEMENT

**Meeting Nutritional Requirements:** Athletes have higher nutritional requirements than the general population due to the increased energy demands of physical activity. Sports nutrition supplements can help athletes meet their daily protein, carbohydrates, vitamins, and minerals requirements.

**Enhancing Performance:** Certain sports nutrition supplements, such as creatine and caffeine. They have been shown to enhance athletic performance by improving endurance, strength, power, and reaction time.

**Supporting Recovery:** Exercise can cause muscle damage and inflammation, leading to soreness and fatigue. Sports nutrition supplements like protein powders, BCAAs, and omega-3 fatty acids can help speed recovery and reduce muscle soreness.

**Convenience:** Sports nutrition supplements can be a convenient and efficient way for athletes to meet their nutritional needs, mainly when they have limited time or access to whole foods.

# BENEFITS OF NUTRITION SUPPLEMENT

**Promotes muscle growth:** Sport nutrition supplements, particularly protein supplements, are an excellent source of **essential amino acids**, which are the basic blocks of muscles. They help promote muscle growth and repair by providing the body with the essential nutrients to rebuild muscle tissue after exercise.

**Helps in endurance:** These supplements, like carbohydrates and electrolytes, can help improve endurance by providing the body with the energy it needs to sustain physical activity for extended periods.

**Helps reduce fatigue:** Some sport nutrition supplements, such as caffeine and beta-alanine, have been shown to help reduce fatigue during exercise. They can help athletes push through tough workouts and perform at their best.

**Works towards reducing soreness in muscles:** Supplements like omega-3 fatty acids and glutamine have anti-inflammatory properties. It can help reduce muscle soreness after exercise, allowing athletes to recover more quickly and get back to training.

**Increases the antioxidant defenses of an individual:** Sport nutrition supplements like vitamins C and E, as well as antioxidants like resveratrol, can help increase the body's antioxidant defenses. It can help reduce oxidative stress and inflammation after intense exercise.

**Allows you to train harder and longer:** Sport nutrition supplements like creatine and beta-alanine can help increase the body's ability to perform high-intensity exercise. It gives athletes the required extra boost to train harder and longer.



**Enhances concentration:** Supplements like caffeine and tyrosine can help enhance focus and concentration. It can be especially beneficial during long workouts or competitions.

**Reduces the potential for injury:** Some sport nutrition supplements, such as collagen and glucosamine, can help improve joint health and eliminate the risk of injury during exercise.

**Helps maintain healthy immune function:** Sport nutrition supplements like vitamin D and zinc can help support a **healthy immune system**. It is essential for athletes who train hard and put their bodies under stress.

# THANK YOU

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