



# Nutritional Practices And Their Effect On Performance Among College Kabaddi Players

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**Abstract:** Nutrition plays a crucial role in the overall performance of athletes, including Kabaddi players. Proper dietary intake enhances endurance, strength, agility, and recovery, which are vital for optimal performance. This article examines the nutritional practices of college Kabaddi players and their impact on performance. It also highlights the importance of macronutrients, micronutrients, hydration, and meal timing in athletic success.

**Index Terms –** *Video-Assisted Refereeing (VAR), Artificial Intelligence (AI), Sensor-Based Tracking and Sports Technology*

## 1. INTRODUCTION

Kabaddi is a high-intensity contact sport that demands agility, strength, speed, and endurance. The game involves repeated bursts of energy, quick reflexes, and sustained physical effort, making proper nutrition essential. College-level players often face challenges in maintaining an appropriate diet due to academic pressures and limited access to specialized sports nutrition guidance. This article explores the role of nutrition in enhancing Kabaddi performance and provides insights into dietary practices that can optimize fitness and gameplay.

### 1.1 Macronutrient Requirements for Kabaddi Players

1. **Carbohydrates:** The primary energy source for Kabaddi players, carbohydrates provide the necessary fuel for intense physical activity. A diet rich in complex carbohydrates (whole grains, fruits, and vegetables) helps maintain glycogen stores and sustain energy levels.
2. **Proteins:** Essential for muscle repair and growth, proteins aid in post-match recovery. Lean meats, dairy products, legumes, and nuts are excellent protein sources.
3. **Fats:** Healthy fats support long-term energy needs and overall metabolic function. Omega-3 fatty acids from fish, nuts, and seeds are particularly beneficial for reducing inflammation and improving recovery.

### 1.2 Micronutrient and Hydration Needs

1. **Vitamins and Minerals:** Iron, calcium, vitamin D, and B-complex vitamins play crucial roles in energy metabolism, bone strength, and muscle function. Dark leafy greens, dairy products, and nuts are excellent sources.
2. **Hydration:** Proper fluid intake prevents dehydration, which can impair reaction time, endurance, and cognitive function. Electrolytes (sodium, potassium, and magnesium) must be replenished after intense training and matches.

### 1.3 Meal Timing and Pre/Post-Game Nutrition

1. **Pre-Game Nutrition:** A balanced meal 2-3 hours before a match should include complex carbohydrates, moderate protein, and minimal fat to ensure sustained energy.
2. **Post-Game Nutrition:** Recovery meals should prioritize protein for muscle repair and carbohydrates to restore glycogen levels. Hydration with electrolyte-rich fluids is also critical.

### 1.4 Importance of Nutrition in Training Phases

Kabaddi players undergo different training phases, each requiring specific nutritional support:

- **Off-Season Training:** Focuses on muscle building and endurance. A higher intake of protein and complex carbohydrates is recommended.
- **Pre-Season Training:** Aims at improving agility and strength. Balanced macronutrient intake with emphasis on hydration is crucial.
- **Competition Phase:** Requires strategic energy loading with carbohydrates and hydration for peak performance.

### 1.5 The Role of Supplements in Kabaddi Performance

1. **Protein Supplements:** Whey protein can help with muscle recovery when dietary intake is insufficient.
2. **Creatine:** Enhances strength and performance in high-intensity activities.
3. **Electrolyte Supplements:** Aid in preventing cramps and maintaining hydration.
4. **Multivitamins:** Help bridge nutrient gaps in a player's diet.

### 1.6 Common Nutritional Challenges and Solutions

1. **Limited Access to Balanced Meals:** Many college players struggle to find nutritious meals. Meal prepping and seeking affordable, nutrient-dense food options can help.
2. **Inadequate Hydration:** Players often neglect proper hydration. Carrying water bottles and consuming natural electrolyte sources like coconut water can be beneficial.
3. **Unbalanced Diets:** A lack of dietary awareness can lead to deficiencies. Educational programs and guidance from sports nutritionists can improve dietary habits.

### 1.7 Psychological and Social Aspects of Nutrition

- **The Influence of Peer Groups:** Players often follow their teammates' eating habits, which may not always be optimal.
- **Mental Impact of Nutrition:** A well-balanced diet contributes to mental clarity, focus, and overall confidence.
- **Cultural and Economic Barriers:** Traditional diets and financial limitations can impact nutritional choices.

### 1.8 Case Studies and Research Evidence

Recent studies indicate that athletes with structured nutrition plans exhibit better stamina, agility, and endurance. Case studies of elite Kabaddi players show the positive effects of proper dietary practices on performance and injury prevention.

## 2. CONCLUSION

Nutrition is a cornerstone of athletic performance in Kabaddi. College players must focus on balanced macronutrient intake, adequate hydration, and proper meal timing to enhance their endurance, strength, and recovery. Institutions should provide nutritional education and support systems to optimize player performance and well-being.

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