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## Impact Of Kabaddi Mat Matches On Performance And Skill Improvement

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**Abstract:** Kabaddi, a high-intensity contact sport, has seen significant changes with the introduction of specialized mats, replacing traditional soil-based surfaces. This study examines the impact of kabaddi mat matches on players' performance and skill development. By analysing player performance data, injury rates, and training adaptability, this research aims to provide insights into the advantages and challenges of mat-based kabaddi. The findings suggest that mat-based matches improve agility, reduce injuries, and enhance strategic gameplay, making them an essential aspect of modern kabaddi training.

**Index Terms - Kabaddi, Mat Matches, Performance, Skill Improvement**

### 1. INTRODUCTION

Kabaddi, deeply rooted in South Asian culture, has evolved from rural fields to international arenas. The transition from playing on mud to synthetic mats has changed the game's dynamics, affecting players' movement, injury rates, and overall performance. This study explores how mat-based kabaddi influences skill improvement, injury prevention, and gameplay tactics, making it a crucial factor in professional and amateur kabaddi tournaments worldwide.

A Kabaddi mat with superior grip and traction ensures that players maintain their footing and execute manoeuvres with confidence. This prevents slips and falls, safeguarding player safety and promoting a smooth, uninterrupted game flow.

These specialized mats are much more than just a cushioned layer on the ground. High-quality Kabaddi mats play a pivotal role in enhancing player performance, ensuring safety, and creating an optimal playing environment.

### 2. KABADDI MATS

So, what exactly makes a Kabaddi mat exceptional? Let's delve into some of the crucial features that differentiate a good mat from a great one:

#### 2.1 Shock Absorption and Impact Reduction

Kabaddi involves a significant amount of jumping, landing, and lunging. A top-tier Kabaddi mat should provide exceptional shock absorption properties to minimize the impact on players' joints, particularly the knees and ankles. This reduces the risk of injuries and allows players to perform at their peak without worrying about strain.

#### 2.2 Superior Grip and Traction

Sudden changes in direction and explosive movements are fundamental aspects of Kabaddi. A Kabaddi mat with superior grip and traction ensures that players maintain their footing and execute manoeuvres with confidence. This prevents slips and falls, safeguarding player safety and promoting a smooth, uninterrupted game flow.

### 2.3 Durability and Resilience

Kabaddi is a high-energy sport, and the playing surface needs to be able to withstand the demands of intense gameplay. Durable Kabaddi mats are built to last, resisting wear and tear from constant use. They should also be resilient enough to handle the weight and impact of players without sustaining damage.

### 2.4 Easy Maintenance and Cleaning

Maintaining a clean playing surface is crucial for hygiene and overall playing experience. Look for Kabaddi mats that are easy to clean and maintain. Ideally, they should be constructed from materials that resist dirt, dust, and sweat accumulation, allowing for a quick and effortless cleaning process.

## 3. PERFECT KABADDI MAT

Beyond the core features, here are some additional factors to consider when selecting the ideal Kabaddi mat:

**Mat Thickness:** The optimal thickness for Kabaddi mats typically ranges from 30mm to 40mm. This thickness offers a good balance between shock absorption and performance.

**Playing Surface:** Kabaddi mats come in various surface textures, each offering slightly different playing characteristics. Some players prefer a smooth surface for effortless movement, while others favour a slightly textured surface for enhanced grip.

**Safety Certifications:** Ensure the Kabaddi mats you choose comply with relevant safety certifications and standards, guaranteeing a safe playing environment for athletes.

## 4. REVIEW OF RELATED LITERATURE

Previous research on kabaddi primarily focuses on player fitness, traditional training methods, and injury prevention. Studies on surface effects in sports like wrestling and judo indicate that mats enhance safety and technique refinement. Research on agility and endurance training also suggests that controlled surfaces contribute to better performance outcomes. This section reviews literature related to sports surface impact, injury prevention, and skill enhancement in kabaddi and similar sports.

## 5. METHODOLOGY

This study employs a mixed-method approach, incorporating:

- **Player Performance Analysis:** Tracking improvements in agility, reaction time, and strength using performance metrics.
- **Injury Rate Comparison:** Analysing injury reports from mat-based and mud-based matches.
- **Surveys and Interviews:** Gathering feedback from professional players, coaches, and trainers.
- **Video Analysis:** Reviewing match footage to assess movement efficiency, strategy adaptation, and skill execution. The data is analysed using statistical tools to determine the correlation between playing surfaces and performance improvements.

## 6. RESULTS AND DISCUSSIONS

Preliminary findings indicate that mat-based matches enhance player agility and reduce the risk of injuries compared to traditional surfaces. The controlled surface allows for better movement precision and faster gameplay adaptation. Players report improved tactical execution, especially in defensive manoeuvres and raiding techniques. However, transitioning from mud to mat requires specific training modifications, including strength conditioning and footwork drills to optimize performance on synthetic surfaces.

## 7. CONCLUSION

The adoption of kabaddi mats has revolutionized the game, making it safer and more dynamic. The study highlights the advantages of mat-based gameplay in terms of performance enhancement, injury reduction, and tactical evolution. While the shift from mud to mat requires training adaptations, the benefits outweigh the challenges, making mats a vital component of modern kabaddi. Future research should explore long-term impacts on player endurance and psychological adaptation to different playing surfaces.

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