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Kotak Pullela Gopichand

Badminton Academy

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Injury Surveillance Report

**Yonex-Sunrise All India Sub-Junior Ranking
Badminton Tournament 2026 (U15/U17)**

Tournament Dates: **29 May – 06 June 2026**

Report Date: **10 June 2026**

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Official Sports Medicine & Health Partner

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Injury Surveillance Report

Yonex-Sunrise All India Sub-Junior Ranking
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Tournament Dates: 29 May – 06 June 2026
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Executive Summary

The CSSH Sports Medicine and Physiotherapy Team served as the official Sports Medicine & Health Partner for the Yonex-Sunrise All India Sub-Junior Ranking Badminton Tournament 2026 (U15/U17), providing comprehensive medical coverage throughout the competition.

A total of 176 injury presentations were managed during the tournament. The majority of cases occurred among athletes aged 13–15 years, with 14-year-old players representing the largest proportion of injured athletes. Male athletes accounted for 67% of all injury presentations.

Singles events contributed to the highest injury burden, accounting for nearly 88% of all reported cases. Lower-extremity injuries represented the dominant injury category, with the knee, hamstring, and ankle being the most frequently affected anatomical regions.

The findings highlight the substantial physical demands placed on junior badminton athletes and reinforce the importance of targeted injury-prevention strategies focusing on lower-limb strength, neuromuscular control, workload management, recovery optimization, and athlete education.

Tournament Medical Coverage

CSSH provided on-site sports medicine and physiotherapy services throughout the tournament to ensure athlete safety, timely injury management, and optimal competition participation.

Services Provided Included:

- Acute injury assessment
- On-court injury management
- Physiotherapy consultation
- Sports taping and strapping
- Recovery management
- Medical referrals when required

Tournament Injury Summary

Parameter	Value
Total Injuries Recorded	176
Mean Age	14.1 ± 1.4 Years
Male Athletes	14.1 ± 1.4 Years
Female Athletes	58 (33%)
Most Affected Age Group	14 Years (31.3%)
Most Common Event	Men's Singles (58%)
Most Common Injury Site	Knee (26.7%)

Key Tournament Highlights



176

injury presentations were managed during the tournament.



73.4%

of all injury presentations occurred in athletes aged 13-15 years.



66.7%

(two-thirds) of all reported injury cases involved male athletes.



87.5%

of the total injury burden occurred during singles events.



The **knee**

was the most commonly injured anatomical site.



Approx. **75%**

(three-quarters) of all injuries involved the lower extremities.

Demographic Profile of Injured Athletes

Gender Distribution

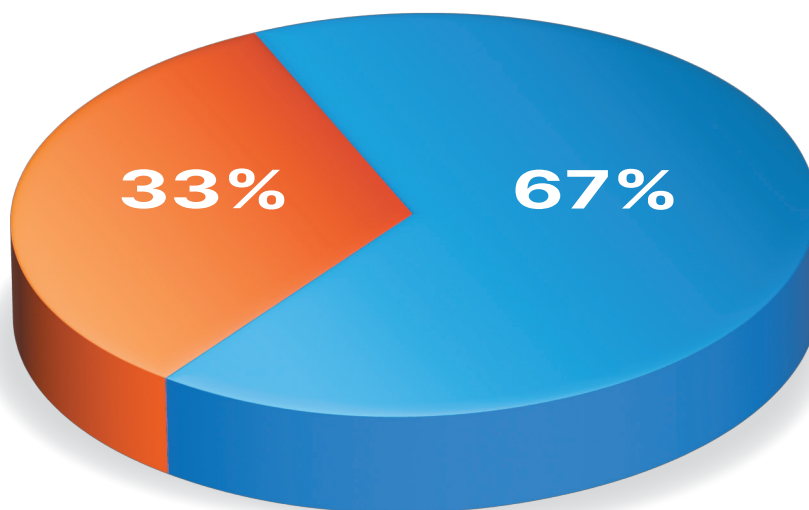
Of all injury presentations managed during the tournament:



118(67%)
Male Athletes



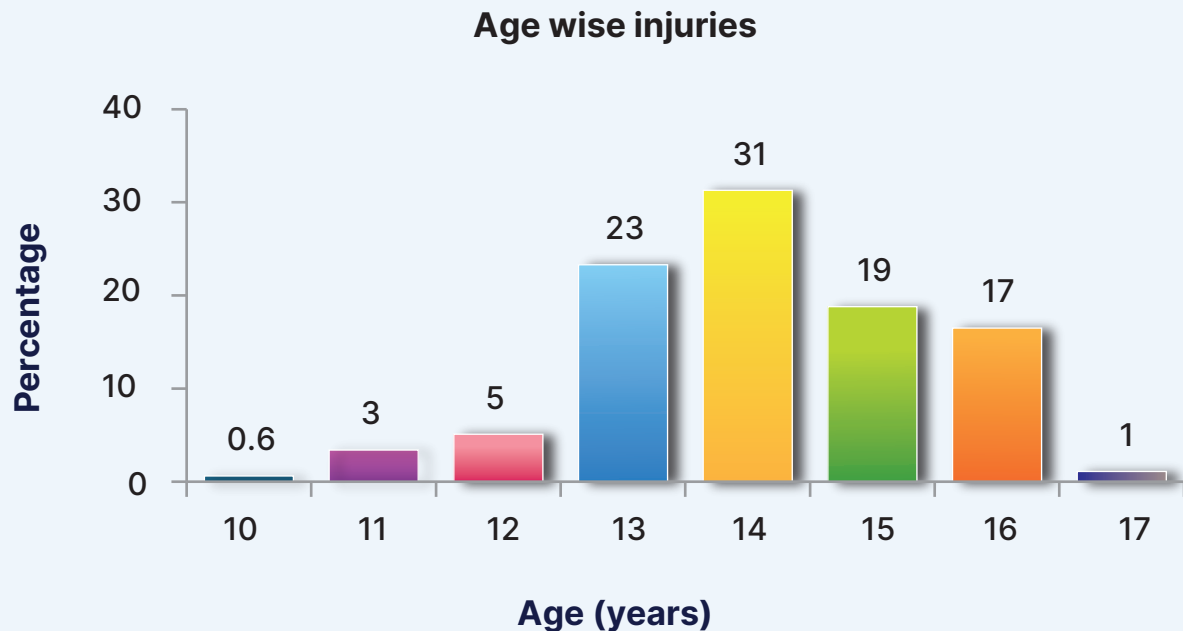
58(33%)
Female Athletes



The higher proportion of injuries among male athletes may reflect greater participation numbers and exposure during competition

Age Distribution

Distribution of injury presentations across ages 10–17 years.



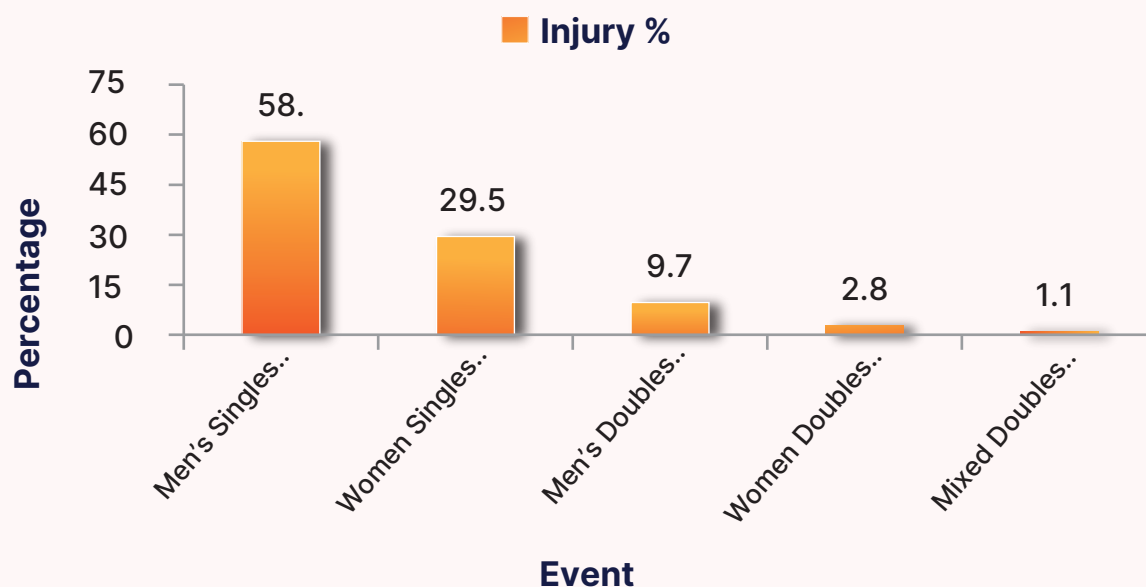
Key Observation

Athletes aged 13–15 years accounted for 73.4% of all injury presentations, identifying this age group as the most vulnerable period for injury occurrence during competitive badminton participation.

This finding may reflect the combined influence of rapid growth, increasing training volume, and elevated competition demands during adolescence.

Event-Wise Distribution of Injuries

Injury Presentation by Event



Key Findings

- Men's Singles accounted for **58.0%** of all injury presentations.
- Women's Singles accounted for **29.5%**.
- Singles events collectively contributed **87.5%** of all reported injuries.
- Doubles events represented **12.5%** of injury presentations.

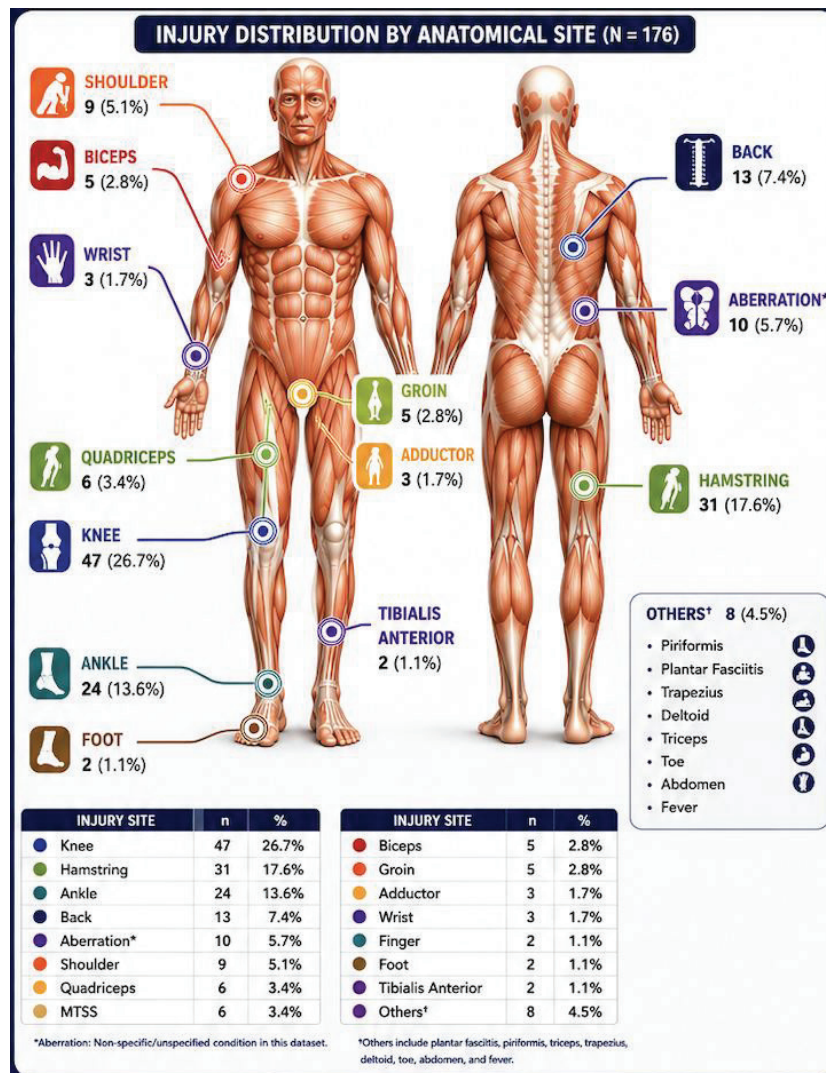
Clinical Interpretation

The markedly higher injury burden observed in singles competition likely reflects increased court coverage requirements, higher movement volumes, repeated accelerations and decelerations, multidirectional movement demands, and prolonged rally durations.

These factors place considerable biomechanical stress on the lower extremities and contribute to the elevated incidence of lower-limb injuries observed during the tournament.



Anatomical Distribution of Injuries



Distribution of injury presentations by body region

Most Common Injury Sites

Region	Cases	Percentage
Knee	47	26.7%
Hamstring	31	17.6%
Ankle	24	13.6%
Back	13	7.4%
Shoulder	9	5.1%

Together, knee, hamstring, and ankle injuries accounted for approximately 58% of all injury presentations managed during the tournament.

Clinical Significance

The dominance of lower-limb injuries reflects the movement characteristics of badminton, including:

- Rapid directional changes
- Repetitive lunging actions
- Jump landings
- High-speed court coverage
- Repeated eccentric muscle loading

Clinical Analysis

Injury Distribution by Body Area

Body Area	Estimated Contribution	Interpretation
Lower Extremity	71–75%	Dominant injury burden
Trunk/Spine	~7–10%	Includes back-related presentations
Upper Extremity	~10–12%	Includes shoulder, wrist, finger, and upper-limb complaints
Other Conditions	Remaining Cases	Isolated conditions and illness-related presentations

Key Clinical Observation

The injury profile demonstrates a strong predominance of lower-limb injuries. Knee, hamstring, ankle, groin/adductor complex, quadriceps, MTSS, foot, plantar fascia, tibialis anterior, and toe-related conditions collectively accounted for approximately three-quarters of all reported injuries.

Recommendations

Based on the injury patterns observed during the tournament, the following evidence-informed recommendations are proposed

Athlete-Level Interventions

1. Lower Limb Strength Development

- Eccentric hamstring strengthening
- Quadriceps strength optimization
- Single-leg stability training

2. Landing & Deceleration Training

- Jump-landing mechanics
- Shock absorption strategies
- Reactive neuromuscular drills

3. Change of Direction Enhancement

- Multi-directional movement drills
- Lunge technique optimization
- Court movement efficiency training

4. Load Management

- Competition scheduling monitoring
- Recovery surveillance
- Training load progression

5. Injury Prevention Screening

- Movement competency assessment
- Flexibility and mobility profiling
- Early symptom reporting systems

Athlete Health Education

1. Nutrition & Hydration

- Spreading awareness programs at grassroots level to minimise the incidence of injuries and exhaustion on field
- Building hydration strategies

2. Pre-participation Cardiac Screening

- Incorporating Corrado (<https://doi.org/10.1097/hco.0b013e32834dc4cb>) model of cardiac screening at grassroots level to prevent sudden cardiac deaths (SCDs).

Limitation

The findings of this report should be interpreted in consideration of the following limitations:

- Data were collected during a single competitive tournament and may not represent injury patterns throughout the training season.
- Pre-existing injuries and previous injury history were not systematically documented.
- Athlete exposure data (training and match hours) were unavailable, preventing calculation of injury incidence rates based on exposure.
- Minor inconsistencies in data collection may have influenced injury classification and reporting.

Conclusion

The injury surveillance findings from the Yonex-Sunrise All India Sub-Junior Ranking Badminton Tournament 2026 demonstrate that lower-extremity injuries constitute the primary injury burden among junior badminton athletes.

Athletes aged 13–15 years represented the highest-risk demographic, while singles events accounted for the majority of injury presentations. Knee, hamstring, and ankle injuries emerged as the most frequently affected anatomical regions.

These findings support the implementation of structured injury-prevention strategies centred on lower-limb strength development, neuromuscular control, movement quality, workload management, recovery optimisation, and athlete education.

The CSSH Sports Medicine and Physiotherapy Team remains committed to advancing athlete health, injury prevention, and safe sporting participation through evidence-based sports medicine services and continued injury surveillance initiatives.