

SPORTS SCIENCE INDIA

FANZINE

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JAFFER INDIA'S DOMESTIC COLOSSUS

From chasing a 30-run mention in school match reports to ruling Indian domestic cricket with over 12,000 Ranji runs, Wasim Jaffer's journey is a tale of quiet brilliance, relentless discipline, and record-breaking endurance.

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CHINA RULES ASIAN ARENA

Bhubaneswar's Kalinga Stadium hosted the 28th Asian Table Tennis Championships (Oct 10–16), where China clinched both team titles in dominant fashion, even as India delivered flashes of promise amid tough competition.

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CONTACT

+91-7847922850,
 ssifanzine@outlook.com



SPORTS NUTRITION

MUSCLE TRUTH

They're splashed across gym counters, shaker bottles, and influencer feeds — those three letters that promise muscle magic: BCAAs, short for Branched-Chain Amino Acids. For years, athletes and fitness enthusiasts have gulped them before or after workouts, hoping to recover faster, build lean muscle, and banish fatigue. But what really happens when you sip that neon drink after training? Do these supplements deliver what they promise — or are they just another fitness fad wrapped in science jargon?

EXPERT SPEAKS



SHOULDER SHOCK

A seemingly small joint at the top of the shoulder can bring an athlete's career to a halt. The acromioclavicular, or AC joint, often bears the brunt of falls and collisions in sport — but new surgical techniques and smarter rehab are helping players return stronger, faster, and more confident.

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Ashes 2025: England and Australia Renew Cricket's Greatest Rivalry in Perth

Australia and England collide in one of cricket's most enduring rivalries, the Ashes, running from November 21, 2025 to 8 January 2026 across five Tests in Australia. The home side will defend the urn with a settled core led by Steve Smith and Marnus Labuschagne, both in rich batting form. Meanwhile, England, captained by Ben Stokes, are on the hunt for their first Ashes series win in Australia since 2010-11.

WDF World Darts Championship 2025: Tradition Returns to Lakeside

Frimley Green's Lakeside Country Club, the spiritual home of darts, will once again stage the WDF World Championship from November 28 to December 7. The event unites veterans and new stars in pursuit of one of the sport's most coveted titles. Its intimate atmosphere, dedicated fans, and rich history make it a fixture loved by purists worldwide.



Players Championship Finals 2025: Darts' Biggest Names Face Off in Minehead

Minehead will host the PDC's top 64 players for a thrilling finale to the darts season from November 21-23. The Players Championship Finals combine quick-fire action with intense competition, drawing fans from across Europe. With the World Championship looming, the event offers players one last chance to make a statement on the big stage.



Islamic Solidarity Games 2025: Riyadh Unites the Muslim Sporting World

Riyadh is playing host to thousands of athletes from over 50 nations at the fifth Islamic Solidarity Games. The event, which started on November 7, will feature 20-plus sports, ranging from athletics to swimming, till November 21 fostering unity through competition. Saudi Arabia aims to highlight its modern infrastructure and growing sports culture, positioning itself as a global hub for multi-sport events.

Tokyo Deaflympics 2025: A Global Celebration of Inclusion and Sporting Excellence

Tokyo will host the 25th Summer Deaflympics, welcoming over 4,000 athletes from around the world from November 15 to 26. The event underscores inclusion, accessibility, and respect, showcasing the incredible athleticism of the deaf community. Japan's organization and advanced venues promise a world-class experience rooted in equality and innovation.



Champion of Champions 2025: Snooker's Best Battle for Prestige in Leicester

Leicester's Morningside Arena is hosting once again welcome snooker's elite for the prestigious Champion of Champions tournament. Only title winners from the past year qualify, ensuring a star-studded field and fierce rivalries. With a single-table setup and global broadcast reach, the event—from Nov 10 to 16—promises drama, precision, and mastery at every frame.

Southeast Asian Games 2025: Thailand to Host a Regional Sporting Spectacle

Thailand will host the 33rd Southeast Asian Games, bringing together athletes from 11 nations across more than 40 sports from December 9 to 20. Bangkok and Chiang Mai will share hosting duties, blending tradition with modern sportsmanship. The Games symbolize regional unity, pride, and the next generation of Southeast Asian talent.



EVENTS



Abu Dhabi Grand Prix 2025: F1 Season Closes Under Yas Marina's Lights

The Formula 1 season finale will once again take center stage at Abu Dhabi's Yas Marina Circuit on December 7. The race, famous for its sunset start and night-time finish, delivers drama both on and off the track. As teams battle for final points and glory, the event promises glamour, precision, and speed in equal measure.



DR. SARTHAK PATNAIK

MS. Orthopaedics,
FSSIA, FASM, FHA, FSSM,
Arthroscopic & Sports Surgeon

DEAR READERS

It gives me immense pleasure to bring to you the October edition of SSI Fanzine — an issue that truly embodies our mission of blending the vibrancy of sport with the depth of sports science. Each month, we try to craft a magazine that informs, inspires and ignites curiosity, and I believe this edition does exactly that.

Our cover story is a tribute to one of Indian cricket's most consistent, dignified and towering figures — Wasim Jaffer. His journey through domestic cricket is not just a chronicle of runs and records, but a lesson in resilience, discipline and quiet excellence. I urge our young readers, especially those dreaming of a sporting future, to read his story closely; there is so much to learn from the way he shaped his career brick by brick.

This edition also carries a detailed sports-science analysis on rib injuries caused by stress fractures, with a special focus on combat sports where these injuries often remain under-identified. The piece aims to create awareness among athletes, coaches and parents about early signs, prevention and recovery protocols.

We are thrilled to present a special photo feature capturing two major events held recently — the Asian Table Tennis Championships at Kalinga Stadium and the National Junior Athletics meet. The energy and promise of young athletes shine through every frame, and I hope you enjoy reliving those moments as much as we enjoyed curating them.

Another highlight of this issue is our analysis of the new badminton scoring format adopted by the BWF at the World Junior Championships in Guwahati. We examine how effective the system has been so far, supported by valuable insights from Vimal Kumar, former coach of Saina Nehwal, who shares a nuanced perspective on the format's impact on player strategy and match dynamics.

Rounding off the edition are scientific articles from Dr Ayaippan, Senior Consultant at Manipal Hospitals, whose contributions continue to enrich our understanding of athlete health, physiology and performance. I warmly invite you to dive into this edition, explore its stories, and engage with the science behind the sports we love. Your support and curiosity keep this magazine thriving. Let's make this month's reading an exciting and meaningful journey.

Warm regards,
Dr Sarthak Patnaik
Editor, SSI Fanzine

Contact +91-7847922850,
ssifanzine@outlook.com

CHIEF EDITOR'S DESK

THE HIDDEN PAIN OF THE RIB CAGE

Unlike a dramatic break from a punch or a collision, stress fractures build silently, often invisible at first on a normal X-ray and only detected when bone tries to heal itself...read more:

In the world of high-performance sports, even the unlikeliest bones can tell a story. Among them, the ribs — slender, curved, often overlooked — can quietly crack under pressure. For combat athletes, whose very livelihood depends on absorbing, generating, and redirecting force, a rib stress fracture can feel like a betrayal of their own body.

Rib stress fractures are rare but real. These injuries occur when microscopic cracks form in rib bones over time, rather than from a single, violent impact. Unlike a dramatic break from a punch or a collision, stress fractures build silently, often invisible at first on a normal X-ray and only detected when bone tries to heal itself and forms a "callus."

WHY RIBS, AND WHY ATHLETES?

You might expect stress fractures in the legs or feet — and you'd be right. But ribs, particularly in athletes who use their upper body a lot, are vulnerable too. Repetitive movements, heavy breathing, and constant muscle tension (especially from muscles like the serratus anterior that pull on the rib cage) all play a part.

In rowing, for example, stress fractures of the rib are relatively well documented. In one study of nine Italian Olympic rowers, eight of the fractures occurred on ribs between the fourth and ninth, often anterolaterally (on the side), and were confirmed via bone scan or sonography even when regular X-rays didn't show much.

Another paper reported a similar injury in an elite oarsman: he had three days of pain aggravated by deep breathing, and imaging finally caught a fracture in the region where the serratus anterior muscle attaches — suggesting that the muscle's repeated pull had gradually worn down the bone.

WHEN TRAINING ITSELF HURTS — A SURPRISING CASE

One of the most telling medical reports comes from an elite female sprinter.



She wasn't hit by anything. Rather, during her rehabilitation (after a lower-limb injury), she increased upper-body work — specifically, bench press. But here's the twist: she modified her technique, "bouncing" the barbell off her rib cage to get a little more leverage. Within a couple of weeks, she felt a dull but persistent pain in her chest, worse when she sneezed.

A CT scan revealed a stress fracture in her fifth rib, with callus formation (signs of healing). She stopped that style of bench-pressing, took about a month off, and gradually returned — but the lesson was stark: even low-velocity, repetitive "micro-trauma" (from the barbell hitting the rib) can lead to a stress fracture.

COMBAT SPORTS: THE SILENT RISK

You might ask: but what about combat sports — boxing, MMA, Muay Thai — where flies a thousand blows, and ribs take their share? There are fewer formal research studies in these domains — likely because many injuries are acute (from a single strike) rather than stress-related (from repetition), and because athletes might under-report pain or skip imaging.

Still, stress or fatigue fractures of the first rib have been reported even in contact or repetitive overhead sports. In a rare case, a kickboxer was found to

CHIEF EDITOR'S DESK

have a stress fracture in his first rib. The first rib is tucked under the collarbone, and stress there can come from muscular pull or even from trauma.

In overhead throwing athletes (like pitchers), one study looked at 24 first-rib stress fractures: many athletes had shoulder or upper-back pain, and most were treated without surgery. While this isn't exactly combat sport, the mechanisms (muscular tension, repetitive strain) overlap.

More broadly, reviews of upper-extremity stress fractures note that ribs can be affected in a wide variety of sports — from wrestling to judo to weight-lifting — because muscles around the chest, shoulders, and trunk may overload the rib bones during high-volume training.

FAMOUS ATHLETES WHO FACED RIB INJURY

While stress fractures specifically have been less commonly reported in combat stars, some high-profile athletes have suffered rib trauma:

Rafael Nadal, the tennis legend, was diagnosed with a rib stress fracture (or "stress crack") in 2022, sidelining him for weeks.

In American football, Tony Romo played through a broken rib (and even a punctured lung) in a game, though that was due to acute trauma rather than stress fracture.

To my knowledge, there is a lack of well-documented public case of a top-tier combat athlete (MMA or boxing) being diagnosed with a rib stress fracture. Though that doesn't mean rib injuries don't happen. They might simply be underdiagnosed or underreported.

WHAT IT FEELS LIKE?

Pain with deep breathing: Because every inhale moves the rib cage, even a small crack hurts more as you draw breath.

■ **Tenderness to touch:** The area over the rib may feel sore or tender.

■ **Worsening during training:** In the bench-press case, pain was insidious, creeping in over days.

■ **Delayed diagnosis:** Because X-rays often miss these fractures, bone scans (like Tc-99m scintigraphy) or CT may be needed.

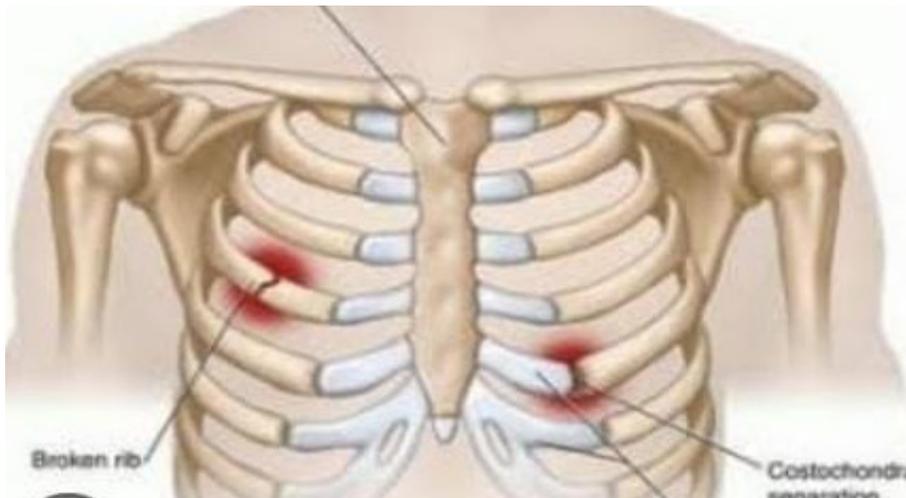
HOW IT IS TREATED?

REST AND RELATIVE REST

One of the central themes in treatment is rest — but not always total rest. Most experts recommend "relative rest": stop or reduce activities that hurt (like throwing or lifting), but you don't have to give up training entirely. For many athletes, this means 4-6 weeks off from the aggravating movement. Over time, as pain eases, light sport-specific training can resume. But if symptoms return, it's a signal to back off again.

FIXING THE TRAINING PROGRAM

Because these injuries are often the result of training issues (errors, overuse, or bad technique), a key part of recovery is analyzing how the athlete trains.



COACHES, PHYSIOTHERAPISTS, AND SPORTS-MEDICINE DOCTORS MAY LOOK AT:

- 1) How often the athlete trains
- 2) Whether there's proper recovery
- 3) Whether technique or posture places excessive stress on the ribs
- 4) In the bench press case, changing technique (removing the "bounce" on the ribs) was essential.

NUTRITION AND BONE HEALTH

Good recovery also requires the right fuel. Low bone density or poor nutrition can contribute to stress fractures. Medical teams may assess diet, calcium/vitamin D, and other bone-health markers.

IMAGING AND MONITORING

If the fracture doesn't heal, or if it's complicated, further tests may be needed: bone scans, CT, or blood tests to rule out other causes (stress fractures can sometimes signal more systemic issues).

RARELY, SURGERY

Most rib stress fractures don't need surgery. But in very rare cases where healing causes large "callus" growth that presses on nerves or vessels, surgical decompression has been reported.

PREVENTION: WHAT COMBAT ATHLETES CAN LEARN?

Even though there's limited direct research into rib stress fractures in combat sports, lessons from rowing, weightlifting, and

overhead sports apply:

- 1. Listen to chest pain, especially if it's gradual and increases with breathing.
- 2. Train smart — avoid repeated micro-trauma (for example, bad technique, or bouncing in lifts).
- 3. Balance load and recovery — stress fractures often reflect training imbalance.
- 4. Check bone health — good nutrition, hormonal balance, and possibly supplements (if advised by a doctor) matter.
- 5. Use protective gear — while not proven to prevent stress fractures, rib guards or padding may help reduce impact in sparring.

THE WIDER PICTURE & WHY IT MATTERS

Rib stress fractures sit in a crossroads of medicine, sports science, and athlete culture. For an elite fighter, even a small crack means weeks of slowed training, breathing discomfort, and a mental toll. But because these injuries don't always make headlines (unlike a knockout or broken limb), they can be underappreciated.

Importantly, as imaging techniques improve and awareness grows, more athletes — even in combat disciplines — may be diagnosed earlier, treated smarter, and return stronger. Emerging technologies (for example, machine learning models that detect rib fractures on CT) promise to make diagnosis faster, but prevention, rest, and good coaching remain cornerstones.



Bhubaneswar: Few cricketers in India's rich cricketing history have dominated the domestic arena like Wasim Jaffer. A giant in the truest sense of the term, Jaffer's name is synonymous with run-making mastery, technical precision, and unmatched consistency. For more than two decades, he ruled India's first-class cricket with his elegance, temperament, and tireless work ethic—quietly building an empire of records that may never be broken.

But behind this legend of domestic cricket was a humble beginning in the bylanes of Mumbai in the early 1990s. Back then, school cricket was not merely a pastime—it was a pipeline of talent. The morning newspapers carried detailed scorecards from inter-school matches, and for many young dreamers, a mention in print was a mark of success. For a sixth-grade boy named Wasim Jaffer, that tiny slice of newsprint was nothing short of a trophy.

Introduced to cricket by his brother Salim, who played at the club level, young Wasim set himself a target in every match—to score at least 30 runs. The number had significance: only those who crossed that threshold had their names featured in the next day's reports. Years later, Jaffer, now a revered coach and cricketing icon, looks back at that simple goal with a smile.

"The day my name appeared in the newspaper, it was celebration time at home," he recalled over the phone from Mumbai. "It was a big achievement for my middle-class parents. That small recognition kept me hooked to cricket right from my school days."

JAFFER

INDIA'S DOMESTIC COLOSSUS

From chasing a 30-run mention in school match reports to ruling Indian domestic cricket with over 12,000 Ranji runs, Wasim Jaffer's journey is a tale of quiet brilliance, relentless discipline, and record-breaking endurance.

Recognising their son's growing passion, Jaffer's parents made a pivotal decision. "Until class 6, I studied at Bandra Urdu High School," he said. "But my parents shifted me to Anjuman Islam School after that because the earlier school didn't emphasise sports. At Anjuman, I found the right environment to pursue cricket seriously." It was

there that Jaffer's name first appeared in the newspapers—after he scored above 30. That little moment, he says, "was enough to make me believe that I belonged to cricket."

Behind his growing discipline stood his brother Salim, whom Jaffer credits as the foundation of his success. "He made me practise twice a day, starting



as early as six in the morning,” he said. “He was my biggest support. In the beginning, I didn’t think about becoming a professional. I just played because I loved the game.”

Even as a teenager, Jaffer experienced setbacks. “One year, I wasn’t selected for the Mumbai U-16 team,” he said. “That was a disappointment. But I kept playing, and in 1991–92, I finally made it to the team. From there, things started to move.” His performances at the junior level soon drew attention.

Jaffer also spent countless hours watching his idol Sachin Tendulkar bat in Mumbai’s matches. “Sachin has been my role model since childhood,” he said. “Later in life, I shared the dressing room with him several times, but I could never tell him that I had always been his admirer.”

Batting came naturally to him, and once he began opening the innings, there was no looking back. “It was difficult to balance bowling and batting,” he admitted. “So I decided to focus on batting. Being an opener is tough—you face the new ball, you don’t know the bowler’s rhythm or strategy. It’s a test of technique and temperament.”

At the school level, Jaffer became known for scoring heavily in Mumbai’s maidans. As a 15-year-old, he famously made 400 not out—an innings that earned him attention across the city



and hinted at the prolific scorer he would become.

Jaffer made his first-class debut in the 1996–97 season for Mumbai. Over the next two decades, he would go on to redefine batting consistency in Indian cricket. He represented India in 31 Tests between 2000 and 2008, debuting against South Africa at the Wankhede Stadium. In those 31 matches, he scored 1,944 runs at an average of 34.01, including five centuries and 11 fifties. His highest Test score—212 against the West Indies

at St John’s, Antigua, in 2006—came at a crucial juncture.

“We needed runs to save the Test match,” he recalled. “I was happy I could contribute when the team needed it.” That innings, marked by patience and classical stroke play, reflected everything Jaffer stood for—a batsman who thrived under pressure.

A year later came one of his most cherished memories: a double century against Pakistan at Kolkata’s Eden Gardens in November 2007. “It was one of my greatest moments,” he said. “I was on 191 by the end of the first day. India-Pakistan Tests were rare back then, and that was the last series between the two teams. Winning that series at Eden Gardens was a dream come true.”

When asked to choose between his two double centuries—212 against West Indies and 202 against Pakistan—Jaffer didn’t hesitate. “It has to be Pakistan. They had some really good bowlers, and the atmosphere at Eden was electric,” he said.

While his international career was relatively brief, his impact on Indian domestic cricket was monumental. In December 2019, he became the first player to feature in 150 Ranji Trophy matches, and shortly after, the only batsman to cross 12,000 runs. Over 260 first-class matches, Jaffer scored a staggering 19,410 runs at an average of 50.67, in-



cluding 57 centuries and 91 fifties. His highest score—314 not out—came in his debut season for Mumbai against Saurashtra, setting the tone for a career built on endurance and elegance.

His Ranji Trophy records are unmatched: most appearances (156), most runs (12,038), most centuries (40), and most catches (200). Jaffer also holds the distinction of being part of 10 Ranji Trophy-winning sides—eight with Mumbai and two with Vidarbha. For Vidarbha, he was instrumental in their back-to-back title wins in 2017–18 and 2018–19, scoring 1,037 runs at an average of 69.13 in the latter season. He remains the only batsman to score over 1,000 runs in two different Ranji seasons.

His longevity, remarkable in an era of fast-changing cricket, remains an inspiration. “I am honoured to have shared the dressing room with players like Rahul Dravid, Sourav Ganguly, Anil Kumble, VVS Laxman, Virender Sehwag, and MS Dhoni,” Jaffer said. “Playing alongside them was a privilege.”

After his retirement from all forms of cricket in 2025, Jaffer turned to coaching—a transition that has challenged and inspired him in equal measure. “As a coach, it’s not about your individual performance anymore,” he explained. “You have to keep the entire team motivated, be honest with your players, and make sure they give their best every time.”

Among his coaching milestones, Jaffer highlights the Bangladesh U-19 team’s Asia Cup victory as a proud moment. “It was the first time Bangladesh won the tournament, so that was special. It felt



good to see the hard work pay off,” he said. His coaching philosophy is rooted in competitiveness and growth. “Play to win,” he said. “Winning is important, but equally important is helping players reach their maximum potential in their roles.”

Reflecting on the state of Indian cricket, Jaffer is optimistic. “Indian cricket is in very good hands,” he said. “The players are confident, the talent pool is vast, and the system is producing world-class crick-

eters. It’s moving in the right direction.”

From chasing a 30-run target for a newspaper mention to breaking every batting record in Indian domestic cricket, Wasim Jaffer’s journey is a masterclass in patience, precision, and perseverance. He may have hung up his boots, but the legacy he leaves behind—of grace under pressure and quiet dominance—will continue to inspire generations of cricketers who dream of their own name appearing, just once, in print.

TAMIL NADU CLINCH OVERALL TITLE AS YOUNG ATHLETES SHINE AT 40TH NATIONAL JUNIOR ATHLETICS CHAMPIONSHIPS IN BHUBANESWAR

Odisha once again proves why it is India's athletics capital — with world-class facilities, flawless organisation, and unmatched support from the state's Sports and Youth Services Department.

● ● ● **Baibhav Mishra**

The 40th National Junior Athletics Championships concluded at Bhubaneswar's iconic Kalinga Stadium with Tamil Nadu emerging as the overall champions, collecting 289 points to narrowly edge past Haryana's 287. The five-day meet, jointly hosted by the Athletics Federation of India (AFI), the Government of Odisha, and the Odisha Athletics Association, reaffirmed the state's growing stature as the home of Indian athletics.

From nail-biting finishes to record-breaking feats, the championship showcased India's next generation of track and field talent. Tamil Nadu sprinters capped the final day with meet records in both men's and women's U20 4x400m relays, sealing their claim to the overall trophy. Haryana, however, dominated the U18 divisions with strong performances in middle-distance and throws.

Among standout moments, U16 athlete Mohd Sameer Khan of Uttar Pradesh set a new national record in the 600m (1:18.48s), while Punjab's Sehnoor Bawa shattered the girls' U16 600m national mark (1:31.83s). Tamil Nadu's Abhinanth AB leapt 4.94m to establish a new meet record in the boys' U16 long jump, and Kerala's Abiya Ann Gigi cleared 1.56m in U16 high jump to break last year's record.

Earlier in the competition, Rajasthan's Basant (2.11m) and Narpat Singh (67.45m) won gold in the men's U20 high jump and hammer throw respectively, narrowly missing the World U20 Championship qualification standards.

The championships also highlighted the remarkable efficiency of Odisha's sports infrastructure, from advanced track systems to athlete services. The Kalinga Stadium complex once again stood as a benchmark in sports management — a testament to Odisha's sustained investment under Chief Minister Naveen Patnaik's sports vision, which continues to attract national and international events.

In total, over 1,800 athletes from 30 states and union territories competed, producing more than a dozen meet and national records. The spirited participation under-



scored the depth of emerging talent across the country — a promising sign ahead of the 2026 World U20 Athletics Championships in Oregon, USA.

With Tamil Nadu crowned overall champions and Haryana finishing a close second,

Bhubaneswar's successful hosting of yet another major athletic event reaffirmed Odisha's title as the sporting powerhouse of India — where young dreams find world-class platforms to leap higher, run faster, and aim further.



Dr Ayyappan V Nair

Secretary Shoulder And
Elbow Society Of India

Imagine being an explorer in the 19th century, peering into unknown landscapes. In many ways, surgeons had to do the same with the knee: a complex joint, with ligaments, tendons, bones, cartilage — a difficult structure to understand, even more difficult to mend when torn.

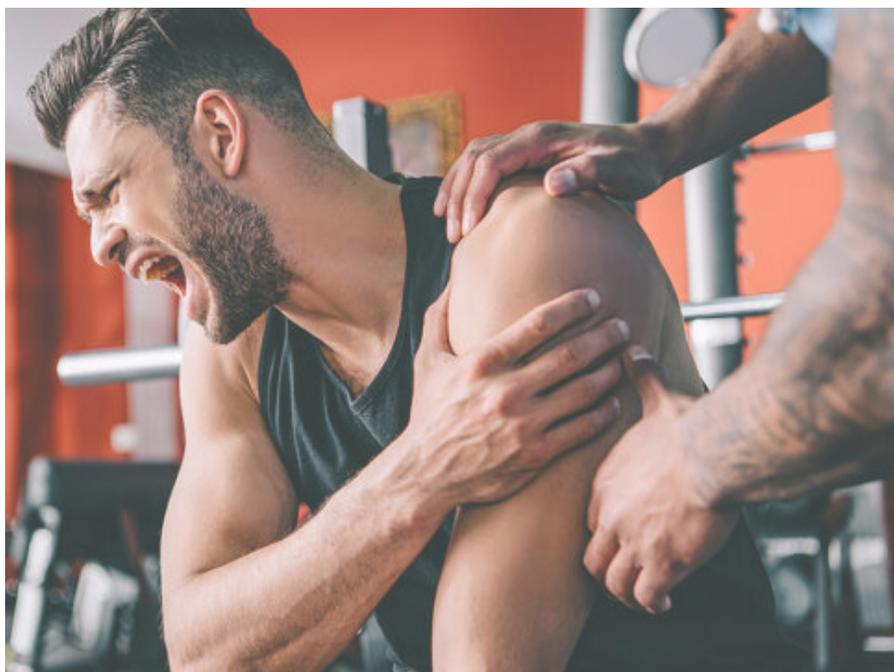
Once dismissed as a minor shoulder sprain, the acromioclavicular (AC) joint injury has emerged as one of the most common and career-impacting ailments in modern sports medicine. For athletes who crash, collide, or tumble, this coin-sized joint at the tip of the shoulder can dictate months of rehabilitation, missed seasons, and uncertain comebacks. From footballers to snowboarders, the AC joint is often the first casualty of impact — and the last to fully heal. Advances in surgical repair and rehab protocols, however, are rewriting the recovery story, offering athletes not just repair, but a stronger, more resilient return.

The acromioclavicular joint, a small articulation between the outer end of the clavicle and the acromion of the scapula, might look insignificant compared to the larger structures of the shoulder. Yet for athletes, especially those involved in contact or high-impact sports, this tiny joint often becomes a major source of pain, lost training time, and even missed seasons. Among shoulder injuries, acromioclavicular, or AC joint injuries, deserve particular attention for their prevalence and their potential to sideline even elite athletes.

These injuries account for about 9 to 12 percent of all shoulder injuries in the athletic population, with nearly 38 percent directly related to sports participation. Contact and collision sports such as rugby, hockey, and American football are the most fre-

SHOULDER SHOCK

A seemingly small joint at the top of the shoulder can bring an athlete's career to a halt. The acromioclavicular, or AC joint, often bears the brunt of falls and collisions in sport — but new surgical techniques and smarter rehab are helping players return stronger, faster, and more confident.

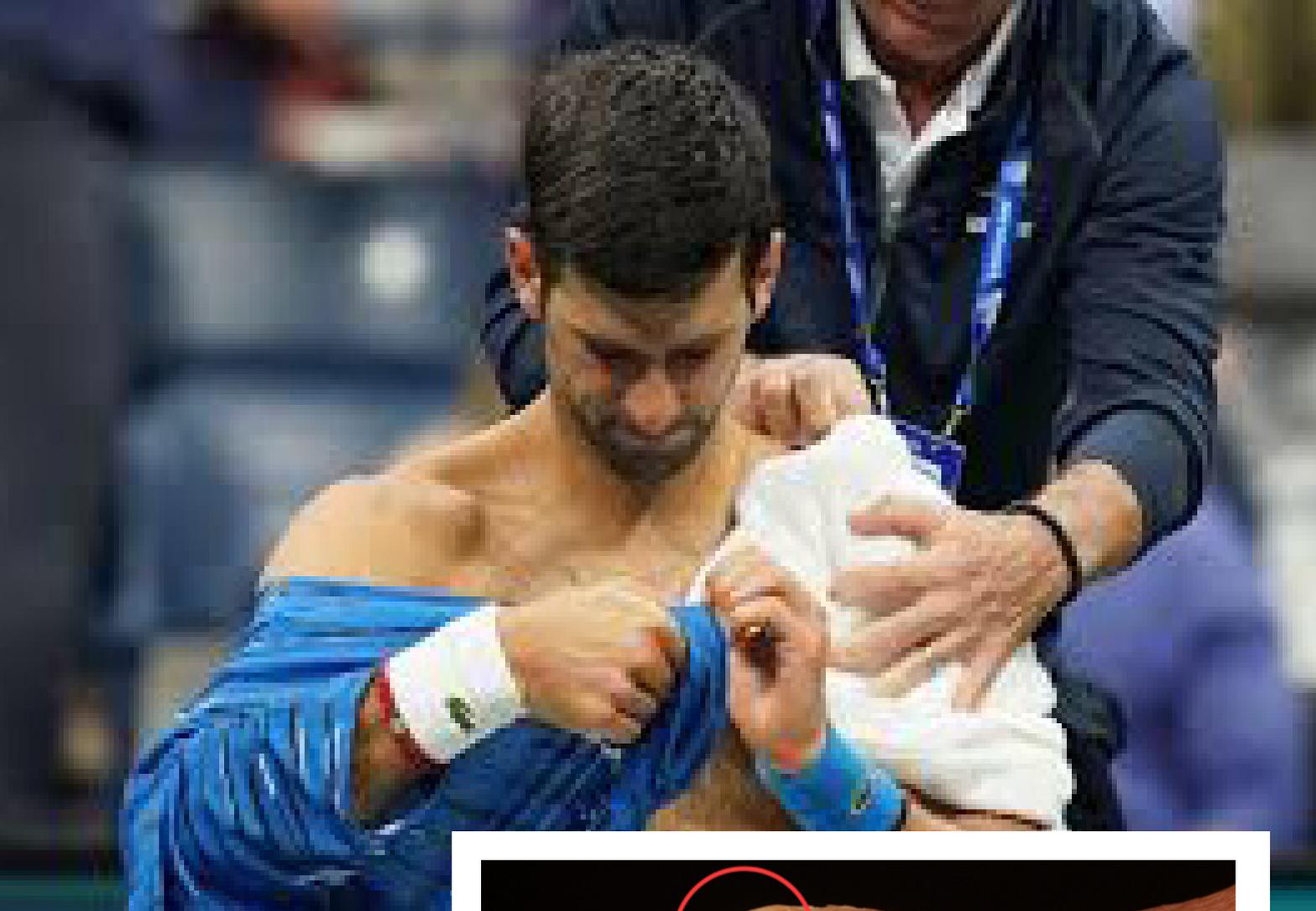


quent culprits, responsible for nearly half of all cases. Non-contact activities that involve falls, such as cycling, skiing, or snowboarding, contribute to another 20 percent. Most AC joint injuries occur when an athlete falls directly onto the shoulder, forcing the acromion downward while the clavicle stays fixed in place. This direct trauma mechanism accounts for nearly 80 to 90 percent of all cases, while the rest result from indirect forces transmitted through the arm, such as a fall on an outstretched hand or elbow.

The severity of an AC joint injury depends on the degree of ligament damage and the amount of displacement between the clavicle and acromion. Most athletes, roughly 89 per-

cent, sustain low-grade sprains, where the ligaments are stretched or partially torn but the joint remains stable. These injuries generally respond well to conservative treatment that combines rest, pain management, and a structured rehabilitation program. High-grade injuries, which make up the remaining 10 to 11 percent, involve complete disruption of the acromioclavicular and coracoclavicular ligaments. These usually require surgical repair, especially in professional or competitive athletes where shoulder stability and symmetry are crucial for performance.

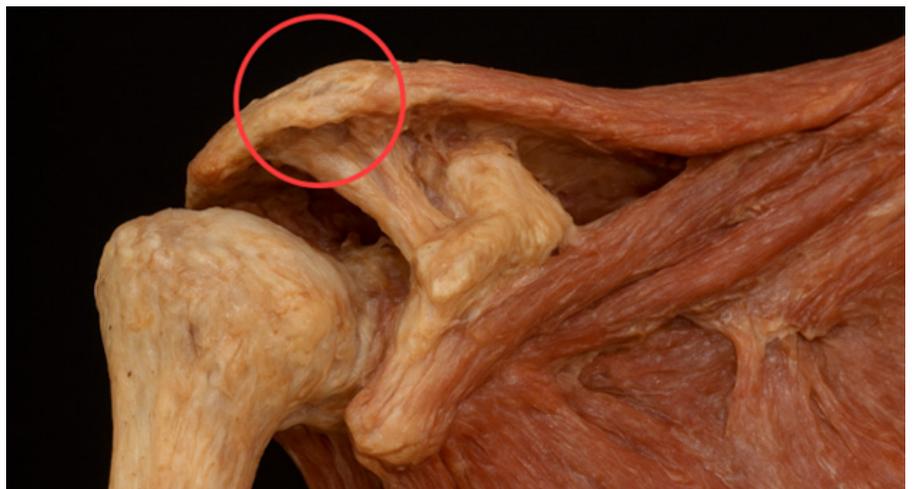
For professionals, even minor shoulder injuries can affect form, training schedules, and contracts. According to data from the National



Football League, players with low-grade AC joint injuries miss an average of about ten days of training, while those undergoing surgical repair may lose more than fifty days and, in severe cases, an entire season. The contrast between these two outcomes can be seen clearly in real-world examples.

One such example is Kieran Trippier, the English footballer who sustained a mild sprain of his left AC joint in November 2021. He was treated conservatively through physiotherapy, gradual strengthening, and progressive shoulder loading. Within a month he was back in full training and returned to competition by mid-January 2022. His case illustrates the success of well-paced rehabilitation and the effectiveness of non-surgical management in low-grade injuries.

In contrast, the story of Anthony Richardson, the Indianapolis Colts quarterback, underscores the complexity of higher-grade injuries. In October 2023 he suffered a severe disruption of the right AC joint that required surgical repair. His recovery was long and carefully monitored, and he did not return to play until September 2024, nearly eleven months



later. Early surgical fixation, ideally within three weeks of injury, usually allows better healing of native ligaments and quicker recovery. Delayed surgery often necessitates more complex reconstructions using biological grafts, extending the rehabilitation timeline.

Over the years, our team has contributed to advancing the surgical management of AC joint injuries through innovative techniques. In 2024 we published two studies in the journal *Arthroscopy* that presented new approaches for both acute and chronic injuries. For acute cases, we

developed a fixation method using specialized fibre tapes that allow precise reduction of the joint without the need for bulky metal hardware. This approach not only achieves excellent cosmetic results but also supports early rehabilitation, which is vital for athletes eager to return to play. For chronic cases, where the injury is more than three weeks old, we designed a technique that combines an autologous hamstring graft with fibre tape augmentation to restore the natural biomechanics of the joint. Both techniques have shown promising outcomes in stability, range of mo-



tion, and patient satisfaction.

Rehabilitation after AC joint injury is a stepwise process that focuses on pain control, strength, and functional recovery rather than rigid timelines. The first phase typically involves short-term immobilization in a sling until pain subsides, along with cryotherapy, gentle assisted movements, and scapular control exercises. Overhead abduction is avoided at this stage to prevent stress on the healing ligaments. Once pain decreases, the second phase emphasizes gradual restoration of motion, particularly forward flexion, and controlled abduction and adduction. Strengthening exercises for the deltoid, trapezius, and rotator cuff muscles are introduced along with proprioceptive neuromuscular facilitation stretches to retrain coordination and shoulder control.

In the third phase, athletes begin resistance and endurance training through exercises such as biceps curls, push-ups, bench press, and shoulder press. For throwing athletes, the “Thrower’s Ten Program” is often added to improve performance and control during overhead movements. The final phase focuses on sport-specific functional drills and plyometric exercises, which help condition the shoulder for the demands of competitive play. Whether it is throwing, tackling, or serving, this stage aims to ensure the athlete can perform at full intensity without pain or hesitation.

A key principle in modern rehabilitation is that return to play should never depend on time alone. Clearance

should be based on objective, functional criteria. The athlete must achieve pain-free movement, symmetrical strength and endurance compared to the uninjured side, stable scapular mechanics, and the ability to perform sport-specific skills without discomfort. For contact-sport athletes, a complete range of motion is not always essential if functional strength and control are adequate. However, for overhead athletes such as pitchers, volleyball players, and swimmers, achieving end-range stability is critical.

Equally important is psychological

readiness. Even after full physical recovery, fear of reinjury or apprehension during high-intensity movements can limit performance. Incorporating confidence-building drills, mental conditioning, and gradual exposure to contact situations helps ensure that athletes return both physically prepared and mentally resilient.

On average, athletes with low-grade AC joint injuries return to competition within three to seven weeks, while those who undergo surgical repair generally require five to six months before unrestricted play. But the ultimate goal is not just to heal the ligaments or restore motion; it is to return the athlete to their full level of performance, stability, and confidence. The AC joint may be small, but its importance in shoulder function and athletic performance is immense.

As sports medicine continues to evolve, combining early diagnosis, individualized rehabilitation protocols, and advanced surgical technique has transformed what was once a career-threatening injury into a temporary obstacle. With smarter management and an emphasis on both physical and psychological recovery, athletes today can look forward to returning stronger, more stable, and more confident than ever. In the end, attention to this small but vital joint can make all the difference between sitting out a season and making a winning comeback.

(The author is Consultant shoulder and sports trauma at Manipal Hospitals, Bangalore)





Jyothi Surekha Vennam Becomes India's First Woman to Medal at Archery World Cup Final

Jyothi Surekha Vennam made history by winning bronze at the Archery World Cup Final in Nanjing, defeating world No. 2 Ella Gibson with a flawless 150-145 scoreline. The result marked India's first-ever women's compound podium at the event. Her precision and consistency have elevated India's presence in global archery. Jyothi's success strengthens India's medal prospects in the coming Olympic cycle.



Indian Athletes Make Their Mark at the Asian Youth Games in Bahrain

Indian teenagers shone across disciplines at the Asian Youth Games, collecting medals in athletics and taekwondo. Debasish Das clinched bronze in taekwondo, Shourya Ambure took silver in the girls' 100 m hurdles, and Jasmine Kaur earned bronze in shot put. The achievements highlight India's deepening talent pool across emerging sports. These young athletes reflect the strength of India's youth development programs.



Indian Kabaddi Teams Strike Double Gold at the Asian Youth Games 2025

India's U-18 boys' and girls' kabaddi teams dominated the Asian Youth Games in Bahrain, both clinching gold medals. The boys triumphed 35-32 in a tense final against Iran, while the girls demolished their rivals 75-21. Their performances reaffirm India's unmatched dominance in kabaddi. The young stars are now seen as the future faces of India's senior national squads.



Tanvi Sharma Ends India's 17-Year Wait at the BWF World Junior Championships

At just 16, Tanvi Sharma scripted history by becoming the first Indian woman in 17 years to win a medal at the BWF World Junior Championships. Her comeback victory over Japan's Saki Matsumoto showcased nerves of steel and mature shot selection. Sharma's rise signals a bright future for Indian women's badminton. Her success echoes the legacy of Saina Nehwal's 2008 breakthrough.

Valentin Vacherot Stuns the Tennis World with Shanghai Masters Triumph



World No. 204 Valentin Vacherot of Monaco completed a fairy-tale run to win the Rolex Shanghai Masters 1000. He became the lowest-ranked player ever to win an ATP Masters title, defeating multiple top-10 opponents along the way. His composure, athleticism, and tactical clarity shocked seasoned stars. The win catapulted him into the world's top 50 and rewrote tennis history.

Lando Norris Seals Sprint Pole and Victory at Brazilian Grand Prix Weekend

McLaren's Lando Norris delivered an electric performance to take sprint pole and victory at Interlagos. The 25-year-old outpaced both Red Bull drivers, continuing his breakout 2025 Formula 1 season. His pace and precision drew widespread acclaim from fans and pundits alike. The win strengthened McLaren's late-season resurgence and cemented Norris's status as a future world champion.



ACHIEVERS

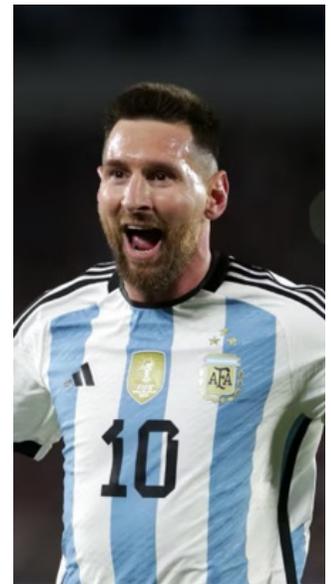
Emma Finucane Bounces Back with Silver at Track Cycling World Championships

Great Britain's Emma Finucane overcame earlier disappointment in the sprint event to secure silver in the women's keirin in Chile. The 22-year-old showed immense mental strength to recover and perform under pressure. Her aggressive racing style and resilience were praised by coaches and fans. The result confirms her as one of Britain's most promising young cyclists.



Lionel Messi Confirms Plans for 2026 World Cup Appearance

Lionel Messi ended speculation by confirming his intent to play for Argentina at the 2026 FIFA World Cup. Despite turning 39 before the tournament, Messi said he remains motivated to lead the defending champions. His influence and longevity continue to inspire fans worldwide. The announcement marks yet another chapter in one of football's greatest careers.



●●● SSI Correspondent

They're splashed across gym counters, shaker bottles, and influencer feeds—those three letters that promise muscle magic: BCAAs, short for Branched-Chain Amino Acids. For years, athletes and fitness enthusiasts have gulped them before or after workouts, hoping to recover faster, build lean muscle, and banish fatigue. But what really happens when you sip that neon drink after training? Do these supplements deliver what they promise—or are they just another fitness fad wrapped in science jargon?

The science beneath the scoop

At the heart of the story are three essential amino acids—leucine, isoleucine, and valine—known collectively as BCAAs because of their branched molecular structure. They're called "essential" because the body cannot produce them on its own; they must come from food or supplements. These amino acids play a vital role in energy production, muscle repair, and recovery after exercise.

A landmark 2017 review by Dr. Robert Wolfe in the *Journal of the International Society of Sports Nutrition* examined years of research on BCAAs and muscle growth. His findings shook the supplement world: BCAAs alone cannot fully stimulate muscle protein synthesis. While leucine does activate a muscle-building pathway known as mTOR, the process can't continue without the other six essential amino acids. In simpler terms, it's like trying to build a wall with just three bricks—you still need the rest of the materials to finish the job.

Wolfe concluded bluntly that "BCAA supplementation alone does not promote muscle anabolism." Yet, his research didn't dismiss BCAAs entirely—it just placed them in context. They are helpful, but only when part of a complete protein intake, not when consumed in isolation.

How BCAAs help—and when they actually work

BCAAs do play a supportive role in training. Leucine, the most studied of the three, helps trigger the initial signal for muscle repair. Isoleucine supports glucose uptake into cells, providing energy during workouts, while valine helps reduce fatigue by competing with tryptophan (a precursor to serotonin) in the brain, which can delay tiredness.

In endurance athletes, such as marathoners or cyclists, BCAAs can help delay fatigue and reduce perceived exertion

MUSCLE TRUTH

From gym bottles to breakfast plates—decoding BCAAs, what science really says, and how athletes can get the most from them naturally and safely.



during long events. For strength trainers, they may slightly speed up recovery and decrease post-workout soreness. Some studies also show reduced markers of muscle damage in athletes who supplement before prolonged exercise sessions.

However, these effects are modest. The real difference shows up when BCAAs are consumed as part of a protein-rich diet. That's why most sports nutritionists recommend whole protein sources—like whey, casein, or soy—over standalone BCAA powders.

Timing it right: a simple athlete's guide

If you train consistently and eat well, you're probably already getting enough BCAAs from your meals. But for those who want a precise strategy, timing matters:

Before training: Taking 5–10 grams of BCAAs about 20 minutes before a workout may help reduce muscle breakdown, especially during long or intense sessions.

During endurance sessions: For events lasting over two hours, sipping on a BCAA-infused electrolyte drink can help sustain energy and delay fatigue.

After training: Skip the isolated BCAAs and go for a complete protein shake or meal instead. Aim for 20–40 grams of protein from food or supplements within an hour post-workout to maximize muscle recovery.

Remember: BCAAs are just part of the equation. Adequate carbohydrates, hydration, and rest are equally crucial for performance and recovery.

The natural route

You don't need to rely on lab-made supplements to get your BCAAs — they're already present in everyday foods. Animal-based sources such as eggs, chicken, fish, and dairy are naturally rich in leucine, isoleucine, and valine, providing the most complete amino acid profiles. A glass of milk or a serving of Greek yogurt after a workout delivers the same muscle-repair benefits that many commercial BCAA drinks promise.

For vegetarians and vegans, soy, tofu, lentils, chickpeas, peanuts, and other legumes are excellent sources. Pairing these with grains like rice or quinoa ensures a balanced amino acid intake. Even a simple meal of dal and rice or a tofu stir-fry can easily meet your daily BCAA needs. Beyond amino acids, these natural foods offer other vital nutrients such as fiber, calcium, and healthy fats — things synthetic powders simply can't provide.

When supplements might help

For most recreational athletes, a balanced diet suffices. But BCAA or EAA supplements may benefit certain groups:

Athletes training twice a day or under heavy loads.

Individuals on calorie-restricted diets trying to preserve lean mass.

Vegans or vegetarians who struggle to meet total protein requirements.

Endurance athletes during long events or intense competition periods.

In such cases, BCAA supplements can



be used strategically, not habitually. The key is to use them to complement food, not replace it. Always opt for products that are third-party certified (like NSF Certified for Sport) to ensure purity and avoid banned substances.

The other side of the story: disadvantages and precautions

While BCAAs are generally safe when used sensibly, overconsumption can backfire. Too much of a good thing isn't always good for performance.

High doses — especially when taken without adequate total protein or calories — can upset amino acid balance in the body. Since BCAAs share metabolic pathways with other amino acids, an excess may interfere with the absorption of compounds like tryptophan and tyrosine, affecting mood and cognitive function.

There's also evidence that excessive BCAA intake can strain the liver and kidneys, particularly in people with pre-existing metabolic conditions. A 2018 review in *Nutrition and Metabolism* noted that chronic high intake of BCAAs may be linked with insulin resistance when not balanced with other nutrients.

Some athletes also report digestive

discomfort, bloating, or nausea when consuming high-concentration drinks or powders on an empty stomach. To avoid this, start with smaller doses and always stay well-hydrated.

Pregnant women, individuals with kidney disease, or those managing metabolic disorders should consult a doctor before using any BCAA supplements.

Finally, athletes should remember that supplements are not tightly regulated. Many products on the market include unverified claims or hidden additives, so always check ingredient labels and certifications.

Beyond muscles: the bigger picture

Recent research (Kaspy et al., 2023; Hole ek, 2018) hints that BCAAs might influence more than just muscle recovery. They could play roles in immune function, gut health, and even mental focus under physical stress. However, the evidence is still evolving, and the benefits remain secondary to those achieved through a well-rounded diet. In short, BCAAs are valuable, but they're not miracle molecules. Athletes who rely solely on them, ignoring diet quality, hydration, and rest, are unlikely to see major gains.

The bottom line

BCAAs do matter — they're part of the body's muscle-repair machinery. But they work best as part of the orchestra, not as solo performers. Real food provides all the amino acids your muscles need, along with vitamins, minerals, and energy that powders can't replicate.

So before you reach for that shaker filled with a neon sports drink, take a look at your plate. A balanced meal of eggs, yogurt, or lentils may already be giving your body everything those glossy supplement ads promise.

As Dr. Wolfe's 2017 review reminded the sports world: "The claim that BCAA consumption alone drives muscle protein synthesis in humans is unwarranted." For athletes chasing strength, speed, or endurance, the truth is simpler — build your foundation with food, train smart, rest well, and use supplements only as support, not salvation. Because when it comes to real gains, science still backs the basics.

References: Wolfe RR. Branched-chain amino acids and muscle protein synthesis in humans: myth or reality? J Int Soc Sports Nutr. 2017.

Hole ek M. Branched-chain amino acids in health and disease. Nutr Metab (Lond). 2018.

Kaspy MS et al. Effects of BCAAs on muscle protein synthesis. Nutrients. 2023.

China showcased its unshakeable command over world table tennis in Bhubaneswar, completing a majestic double by winning both the men's and women's team championships at the 28th Asian Table Tennis Championships. The electric atmosphere at the Kalinga Stadium became the backdrop for a week of high-octane rallies, nerves of steel, and emerging stars making bold statements.

Men's Final: Precision Meets Power

The Chinese men surged to a 3-0 victory over Hong Kong China with clockwork efficiency.

- Lin Shidong, the world No. 1, opened with a clinical dismantling of Wong Chun Ting, unleashing rapid transitions and fearless forehands.
- Wang Chuqin then survived a spirited push from Chan Baldwin, edging through a tense four-game battle with late brilliance and signature backhand winners.
- Liang Jingkun sealed the title, relying on experience and unwavering consistency to shut down Yiu Kwan Go in straight games, prompting joyous celebrations from the Chinese bench.

Women's Final: Dominance With Depth

China's women matched the men blow for blow, overpowering Japan 3-0 with a blend of tactical maturity and youthful spark.

- Wang Manyu recovered from losing the first game to Honoka Hashimoto, shifting gears with flatter, quicker attacks to storm through the next three.
- Sun Yingsha, world No. 1 and the beating heart of the team, out-thought teenage prodigy Miwa Harimoto through sharp receives, pace variation, and cool composure.
- Rising star Kuai Man showed steel beyond her years, overturning a first-game loss to Hina Hayata and clinching the match with intelligent placement and improved serve-return precision.

India's Men: Fighting Spirit, Secured Future

India's men wrapped up their campaign in sixth place—enough to retain their spot in the Champions Division for the next edition.

Young guns Snehit Suravajjula and Payas Jain were fielded against Korea in the 5-6 playoff to gain exposure. Though they fought valiantly, Korea's experience prevailed 3-0. Earlier, India had edged DPR Korea 3-2 in a dramatic first classification match.



CHINA RULES ASIAN ARENA

Bhubaneswar's Kalinga Stadium hosted the 28th Asian Table Tennis Championships (Oct 10-16), where China clinched both team titles in dominant fashion, even as India delivered flashes of promise amid tough competition.

India's Women: Bravery Amid Setbacks

The Indian women finished eighth, resulting in relegation to Division One.

Debutant Swastika Ghosh and Dia Chitale shone brightly with impressive 3-1 wins over Hong Kong opponents. Yet crucial five-game losses for Swastika and Yashaswini Ghorpade tipped the balance. Against DPR Korea, India faltered 1-3, despite Yashaswini's gritty come-

back victory. Senior star Manika Batra was rested in the final tie after a walk-over in the previous round.

■ Takeaway: China's sweep in Bhubaneswar cemented their reign atop the sport, reinforcing both depth and dominance. For India, the championships offered a mix of hard lessons and encouraging flashes—signs of a future still taking shape under unforgiving pressure.





Oly, the mascot

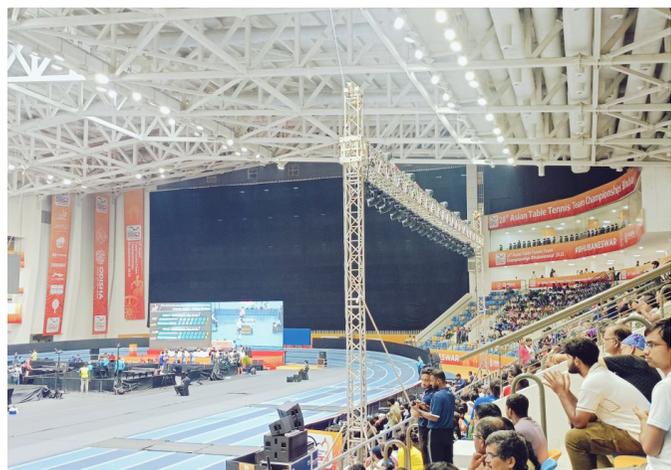




The iconic Kalinga Stadium in Bhubaneswar



Odisha Sports Minister Suryavanshi Suraj plays table tennis during inauguration with president of Commonwealth Table Tennis Federation, Dushyant Chautala



Kalinga stadium packed with table tennis lovers during one of the matches





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