

THE SHOOTER'S SCOPE

Paralympic Olympic Edition Vol 2. Monthly Journal

Sportsgiri Pvt Ltd



SEPTEMBER 2024, VOL 2

"Avani Lekhara,
Mona Agarwal,
Manish Narwal, and
Rubina Francis
clinched victories,
making India proud
at the Paris 2024
Paralympics."



**PRECISION.
RESILIENCE.
VALOUR.**

"Featuring a special edition dedicated to the remarkable achievements and inspiring journeys of athletes in the Paris 2024 Paralympics."

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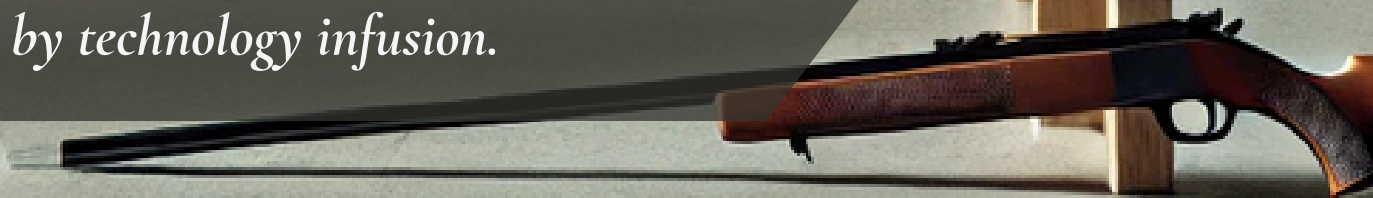
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Our Vision

To democratize sports shooting in India.

Mission

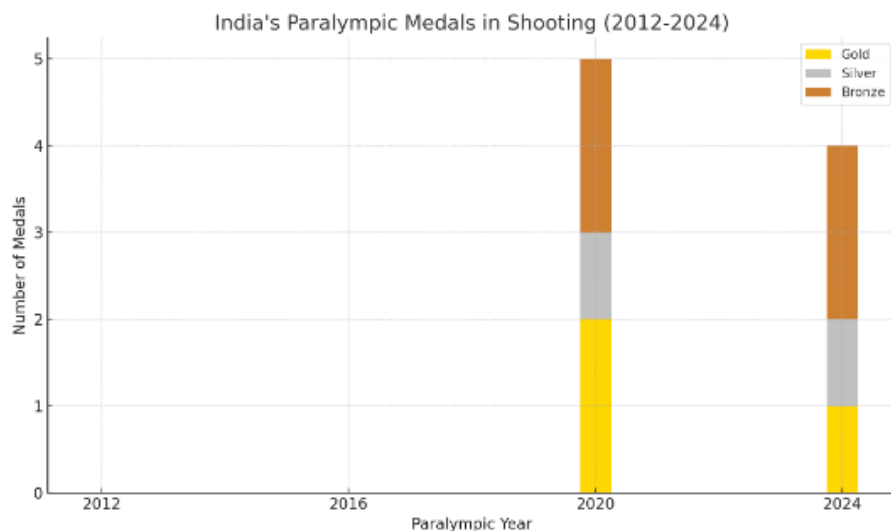
To help overcome challenges faced by sports shooters, coaches, range owners, OEM and other stakeholders by technology infusion.



India's total medals won in each Paralympic year



SPORTS GIRI



**‘PERFORMANCE
DIGITALLY
DELIVERED’**

Sports shooting in India has not only evolved in the mainstream but also in the Paralympic arena, gaining significant traction post-independence. Milestones like Naresh Kumar Sharma's Paralympic debut in 1996 and Avani Lekhara's historic gold at the Tokyo 2020 Paralympics have showcased the growing strength of Indian para-shooters. With a total of multiple medals in Paralympic shooting, including Lekhara's, and increased government support for para-athletes, emerging talents like Rubina Francis have helped India establish itself as a formidable force in the global para-shooting arena by 2024.

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Editorial

Gadgets and screens of all shapes and sizes seem to have become the 'elephant in the room' of our lives. Heads down, shoulders dropped and eyes glued to the incessant 5G downloads, we Indians have become the largest consumers of internet data. This tech proliferation has affected our lives in more ways than one. For a large number of young people, however, their most productive time is wasted in mindless surfing.

Contrast this with para-athletes. Disabled at birth or incapacitated due to unfortunate accidents, para athletes, rather than seeking sympathies, have become role models of determination, self confidence and never-say-die attitude.

In the recently concluded Para Olympics in Paris, our athletes bagged 29 medals (7xGold, 9xSilver, and 13xBronze), making it the biggest haul of medals in India's history of Para Olympics.

In this edition, we bring to you the sterling performance of para - shooters and their stories of struggle. Let us celebrate the success of these warriors who made India proud in the sports arena.

Happy Shooting. Happy Reading.





A message from the Sub-Editors

In the vibrant world of competitive shooting, “The Shooters' Scope” has emerged as a beacon of insight and inspiration. This e-magazine, launched under the banner of Sportsgiri, serves as an essential resource for aspiring shooters and a celebration of the sport's rich heritage.

As contributors to The Shooters' Scope, we, Zoya Khan and Astha Bisht, have dedicated ourselves to creating engaging and informative content that reflects our passion for shooting sports. Our combined efforts have infused the magazine with a unique blend of expertise and creativity. Zoya Khan brings a deep understanding of the sport and a commitment to storytelling, while Astha Bisht offers a fresh perspective and creative flair.

Our work aims to provide not only comprehensive coverage of shooting events and athlete profiles but also valuable insights into training, techniques, and the latest developments in the sport. By showcasing the achievements of athletes and sharing their inspiring stories, we seek to motivate and guide the next generation of shooters.

Through The Shooters' Scope, we aspire to foster a vibrant community where the spirit of competitive shooting can thrive. The magazine stands as a testament to our dedication and enthusiasm, reflecting our commitment to making a meaningful impact in the world of shooting sports and supporting those who strive for excellence.



Astha Bisht

30/08/2024

Zoya Khan

30/08/2024



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A brief history of Paralympic shooting, from its debut in 1976 to its rise as a global sport. It covers key developments in athlete classification, adaptive equipment innovations, and the sport's role in advancing inclusivity. Highlighting prominent champions and nations, the section also looks ahead to future growth and global impact.

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Cover Story: Journey to Glory - Paralympic Shooting Stars

In the realm of sports, few events showcase human resilience like the Paralympic Games, and among its disciplines, shooting stands out for its demand for precision, focus, and determination. This feature explores the lives and careers of three of the sport's most inspiring athletes—Jonas Jacobsson, Cuiping Zhang, and Avani Lekhara—whose stories of triumph and perseverance have made them icons.

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The 2024 Paralympic shooting events in Paris featured standout performances, including India's Avani Lekhara winning gold in the Women's 10m Air Rifle SH1, Jo Jeongdu from Korea taking gold in Men's 10m Air Pistol SH1, and Tanguy de La Forest of France securing a home victory in the Mixed 10m Air Rifle Prone SH2. These events showcased incredible skill, focus, and resilience from all participants.

Paralympic Shooting: Classifications and Events

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Paralympic shooting showcases athletes with physical disabilities competing in precision shooting. Classified into SH1 (can hold firearms) and SH2 (need support), participants excel in air and small-caliber rifle/pistol events. Champions like Avani Lekhara (SH1), Sareh Javanmardi (SH1), and Michael Johnson (SH2) dominate categories ranging from 10m to 50m.

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Paralympic Shooting: Quick Guide

Paralympic shooting includes two event types: Rifle (standing, prone, and 3-position events) and Pistol (10m and 25m).

Athletes are classified as SH1 (no support needed) or SH2 (requires assistance). Scoring is based on accuracy, with tighter bullseye hits earning more points. Finals feature rapid-fire rounds for medals. Watch for technique and learn the athletes' stories to deepen your experience.

Adaptive technology enhances performance in Paralympic shooting. Key equipment includes adjustable shooting stands, customized support systems, advanced sight aids, and adaptive trigger mechanisms.

These tools allow athletes with disabilities to maintain precision and control, overcoming physical challenges to excel in the sport.

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This section explores how Paralympic shooting is adopting eco-friendly practices, including green shooting ranges that use renewable energy, the shift to lead-free ammunition, and energy-efficient venues. It highlights athlete advocacy for sustainability, emphasizing the use of reusable gear and carpooling to reduce environmental impact. The commitment to sustainability aims to ensure a greener future for the sport while fostering inclusivity.

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Shooting for Inclusion:

Paralympics and Beyond: This section highlights the transformative impact of Paralympic shooting, emphasizing its role in promoting inclusion and challenging societal perceptions of disability. It discusses the sport's growth since its debut in 1976, the empowerment of athletes like Avani Lekhara, and the ongoing efforts by national and international federations to expand opportunities for athletes with disabilities. The importance of adaptive technologies, grassroots initiatives, and increased visibility for Paralympic shooters are explored, underscoring the sport's potential as a beacon of equality both within and outside the Paralympic framework.

Shooting Schools and Training Centers for Para Athletes:

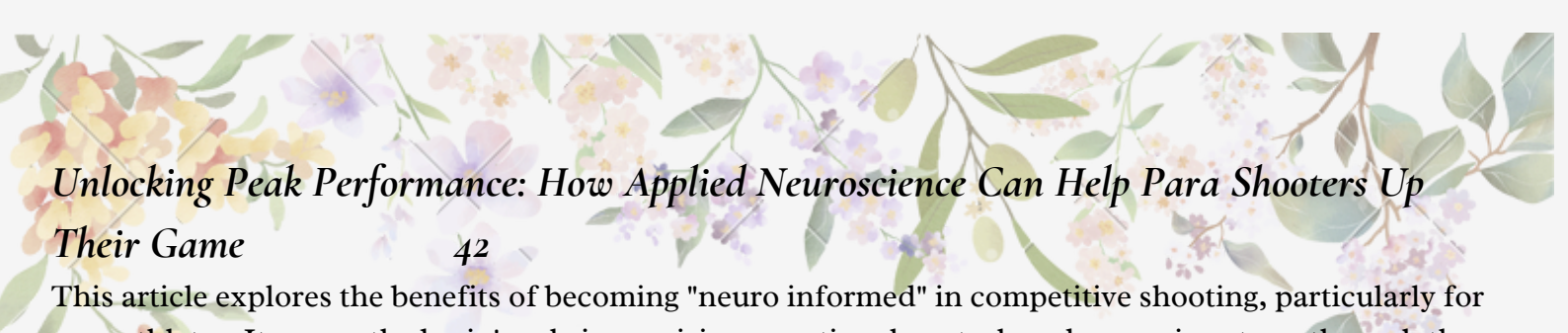
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This section highlights the essential role of specialized shooting schools in developing para athletes, focusing on adaptive technologies and tailored coaching. It emphasizes the importance of mentorship and mental conditioning in fostering resilience and community among athletes. Examples from facilities like India's Dr. Karni Singh Shooting Range illustrate the commitment to inclusivity and empowerment in para shooting training.

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Breaking Barrier: Female Paralympic Shooters Carve Their Legacy on the World Stage

This section highlights the achievements of female Paralympic shooters, focusing on champions like Veronika Vadovičová and India's Avani Lekhara, who inspire through resilience and excellence. It discusses the growth of support for para-athletes and the importance of initiatives like the Target Olympic Podium Scheme, paving the way for future generations in an inclusive sporting landscape.



Unlocking Peak Performance: How Applied Neuroscience Can Help Para Shooters Up Their Game

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This article explores the benefits of becoming "neuro informed" in competitive shooting, particularly for para athletes. It covers the brain's role in precision, emotional control, and managing stress through the HPA axis. Practical strategies from applied neuroscience are presented, including techniques for neuroplasticity, neurofeedback, sleep optimization, and enhancing emotional well-being. The article also discusses how these strategies can improve the quality of life for para shooters, emphasizing personalized training, mindfulness, and building supportive environments.

50 *Nourishing Potential: The Impact of Nutrition and Fitness on Paralympians*

This article discusses the integral role of nutrition and fitness in enhancing the performance of Paralympic shooters. It highlights the importance of physical strength and mental resilience, supported by studies on targeted training and mental techniques. The critical role of personalized nutrition in sustaining energy and muscle function is emphasized, alongside customized fitness plans that cater to the unique needs of Paralympians. Overall, it advocates for a holistic approach combining these elements to achieve peak performance in shooting sports. For more details, check the sources mentioned throughout the article.





Karoly Takacs made his Olympic debut at the London 1948 Games, the same year the Paralympic Movement was born in Stoke Mandeville

©Keystone/Hulton Archive/Getty Images and ALLSPORT

Evolution of Paralympic Shooting

Although shooting has a rich and distinguished past, its inclusion in the Paralympic Games represents a new chapter in the history of the sport and the Paralympic movement. Paralympic shooting, which showcases the determination, talent, and commitment of athletes with disabilities, began as a fledgling sport and has now developed to become a worldwide recognised discipline. The development of the sport's rules, equipment, and role in advancing inclusivity in the sports industry have all shaped this path.

Origins: The Birth of Paralympic Shooting

Paralympic shooting was first introduced in the 1976 Paralympic Games in Toronto, Canada. At that time, the sport was relatively new to the Paralympic movement, with limited events and few participants. The early competitions focused on air rifle and air pistol events, and competitors were primarily individuals with spinal cord injuries.

As part of an overall effort to provide chances for athletes with disabilities to participate at the most elite levels, the sport was included to the Paralympic Games. Pioneers who pushed the envelope of what was possible and showcased the competitive potential of adaptive sports were the individuals who competed in the early Paralympic shooting events.

Development: Growing Recognition and Expanding Categories

The sport of shooting gained prominence in tandem with the Paralympic movement. Significant increases in participation occurred in the 1980s and 1990s as more athletes from various handicap categories entered the sport. As a result, classification systems were created to guarantee impartial competition. Based on the kind and severity of an athlete's disability, the Paralympic shooting classification system divides competitors into standing and seated (wheelchair) divisions.

Did you know that Paralympic shooting first appeared at the 1976 Paralympic Games in Toronto with only a handful of events? Fast forward to today, and it's a globally celebrated sport, featuring cutting-edge adaptive equipment and showcasing the incredible talent and determination of athletes with disabilities!

The sheer number and diversity of events have changed as a result of the sport's growth. The sport expanded to incorporate other shooting disciplines, including 10m, 25m, and 50m events in both rifle and pistol categories, after being initially restricted to a small number of air rifle and air pistol competitions. The level of competitiveness increased as the sport developed, pushing players to new limits in accuracy and technique.

Equipment Modifications: Enabling Excellence

The growth of Paralympic shooting has been significantly influenced by the modification of equipment to accommodate the requirements of competitors with disabilities. These changes have expanded the realm of what is feasible in the sport and given individuals the opportunity to participate on an equal basis.

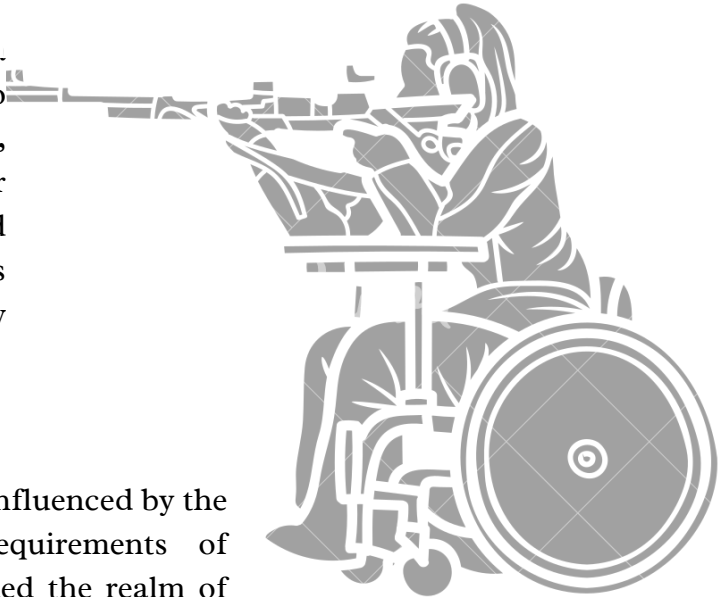
For instance, athletes who have trouble using their hands or arms may utilise customised shooting supports to hold their pistols or rifles. Innovations in assistive technology, including electronic triggers for athletes unable of pulling a conventional trigger, have also been significant. Athletes with visual impairments may now compete in shooting sports by employing tactile or aural signals with the help of sighting devices that have been modified for them.

These advancements in equipment have not only enabled more athletes to participate in the sport but have also elevated the level of competition, allowing Paralympic shooters to achieve remarkable precision and accuracy.



©Simon Bruty for OIS

The development of Paralympic shooting is a tribute to the competitors' determination and the sporting community's combined efforts to foster inclusivity. New chances and difficulties will present themselves as the sport grows, including as refining classification systems and developing adaptable equipment even further. The ultimate goal, though, is still to provide athletes with disabilities a chance to compete at the greatest level and inspire people worldwide. With Paralympic shooting set to continue its upward trajectory, competitors will have an opportunity to exhibit their tremendous talents and determination on the stage as we look ahead to Paris 2024 and beyond. The future of Paralympic shooting looks even more competitive, inspirational, and varied as more nations invest in adapted sports and shooting organisations.



Growth and Globalization: The Sport's Place in the Paralympic Movement

At the highest levels, competitors from all around the world compete in Paralympic shooting, which is now a well-established sport within the Paralympic Games. The Paralympic shooting regulatory organisation, World Shooting Para Sport, and the International Paralympic Committee (IPC) have been working nonstop to promote the sport and expand its global visibility.

The growing number of competitors and participating nations at each Paralympic Games is indicative of the sport's expansion. With competitions in the air rifle, air pistol, and rifle categories drawing athletes from all over the world, Paralympic shooting has grown from its modest origins in Toronto to become a truly global sport

Cover Story: Journey to Glory - Paralympic Shooting Stars

In the world of sports, few events capture the resilience of the human spirit quite like the Paralympic Games. Among the sports that embody this spirit is shooting—a discipline that demands precision, focus, and an indomitable will. For Paralympic shooters, the road to success is often paved with challenges that go beyond the shooting range. This cover story delves into the lives of some of the most inspiring Paralympic shooting stars, whose stories of triumph, perseverance, and passion have made them icons in the world of sports.

Jonas Jacobsson: A Legend of Paralympic Shooting



©Getty Images

In the world of Paralympic sports, few athletes have left as profound a mark as Jonas Jacobsson. Born on June 22, 1965, in Sweden, Jacobsson is widely regarded as one of the greatest Paralympic shooters of all time. His journey from a young boy with a passion for sports to a global icon in shooting is one of resilience, dedication, and unmatched talent.

A Journey Begins: Arnhem 1980

Born with a spinal cord injury, Jacobsson discovered his talent for shooting early on. At just 15, he made his Paralympic debut at the 1980 Games in Arnhem, winning his first gold medal. This marked the beginning of an extraordinary career, spanning ten consecutive Paralympic Games and earning him 30 medals, including 17 gold, 4 silver and 9 bronze medals.

Jacobsson recalls this turning point in his life: *"Winning gold at such a young age gave me the confidence to believe in myself. It wasn't just about the medal—it was about realizing what I could achieve with hard work and focus."*

Building a Legacy

Jacobsson underwent intense physical and mental training, which contributed to his remarkable accomplishment. Known for maintaining his cool under pressure, he stressed the need of mental toughness in shooting, a sport where vigilance is key.

"Shooting gave me a sense of purpose and a way to channel my focus," Jacobsson says. "It was never just about winning medals—it was about pushing my limits and seeing what I was capable of achieving."

Jacobsson's success was also a result of the strong support system around him. He often speaks fondly of the role his coaches and family played in his journey, providing the encouragement and belief that helped him overcome challenges and reach new heights.

Inspiration for the Future

Retiring after the 2016 Rio Paralympics, Jonas Jacobsson's impact on the sport continues to inspire. His legacy of excellence serves as a beacon for new generations of Paralympic shooters, proving that with determination and dedication, greatness is within reach.



Jacobsson's journey is a powerful reminder of the transformative power of sports, and his influence will continue to guide and inspire athletes around the world for years to come. Today, Paralympic shooting is more popular than ever, with athletes from all corners of the globe competing at the highest level. And while the sport continues to evolve, the lessons imparted by legends like Jonas Jacobsson remain timeless.

Here's a surprising fun fact: Jonas Jacobsson, despite his legendary status in Paralympic shooting, also excelled in another sport—table tennis! Before fully committing to shooting, Jacobsson competed in table tennis and was incredibly skilled, showcasing his versatile athletic abilities. Although he eventually focused on shooting, his early success in table tennis is a testament to his natural talent and competitive spirit across multiple sports. This multi-sport background helped shape the mental toughness and hand-eye coordination that later defined his shooting career!



Jonas celebrates winning gold in the Men's R7 50m Rifle 3 positions SH1.

CUIPING ZHANG: CHINA'S PARALYMPIC POWERHOUSE



Cuiping Zhang of China poses with her gold medal after winning the Women's R8-50m Rifle 3 Positions-SH1 competition at the London 2012 Paralympic Games ©getty images

Cuiping Zhang, born on November 14, 1987, has emerged as one of the most formidable athletes in Paralympic shooting. Representing China, Zhang's journey from a promising young shooter to an international powerhouse is a story of exceptional talent, dedication, and resilience.

A Champion's Rise

At the 2012 London Paralympics, Zhang earned her first gold medal in the R8 50m Rifle 3 Positions SH1 event, which catapulted her into global limelight. With this win, an incredible career officially began. She kept up her impressive performance at the next Paralympic Games, winning 13 medals in all from the, Rio 2016, Tokyo 2020, and London 2012 Games—6 gold, 4 silver, and 3 bronze.

Cuiping Zhang has a disability classified under the SH1 category, which refers to athletes with physical impairments affecting their arms or legs. Specifically, Zhang has a condition called "spinal cord injury," which affects her lower limbs and requires her to use a wheelchair. This condition impacts her mobility but has not hindered her exceptional performance in Paralympic shooting, where she has achieved remarkable success.

Her accomplishments highlight her supremacy in the field. Years of rigorous training, with an emphasis on accuracy, stability, and mental toughness, have contributed to Zhang's success. Her technical proficiency and ability to remain composed under duress have elevated her to a prominent position in Paralympic shooting.

A Role Model for Women in Sports

Zhang is now regarded as one of China's best Paralympic athletes and a source of encouragement, especially for young female athletes. In addition to making her nation proud, her accomplishments have opened doors for upcoming female athletes. Zhang has shown through her accomplishments that obstacles can be surmounted and goals may come true with perseverance and hard effort.

"Competing at the Paralympics has not only allowed me to push my limits but has also given me the opportunity to show others what is possible," Zhang shares. "I hope my journey inspires others to believe in themselves, no matter the challenges they face."

Legacy of Determination

The influence of Cuiping Zhang on Paralympic shooting goes beyond her remarkable medal record. Her rise from a teenage athlete to one of the biggest names in the sport is proof of her determination, self-control, and extraordinary talent. Zhang's legacy will surely inspire next generations of athletes as she competes at the highest level, reiterating the idea that great achievements can be attained through dedication and hard effort.

Zhang's tale serves as a potent reminder of the perseverance and passion of Paralympic competitors. Her incredible career and continued contributions to the sport elevate and inspire others, demonstrating that excellence is attainable with dedication and enthusiasm.

Did you know that aside from being a Paralympic shooting sensation, Cuiping Zhang is known for her love of painting? In her downtime, Zhang enjoys expressing herself through art, a hobby that helps her relax and stay focused between intense training sessions. This balance of creativity and competition has played a key role in maintaining her mental strength, which is critical for precision shooting. Zhang credits painting as one of the activities that keeps her calm and centered during high-pressure moments in her sporting career!



Zhang Cuiping bites her gold medal after winning the women's R2-10m air rifle standing at the London Paralympics, on Aug 30, 2012.

[Photo/Xinhua]

Avani Lekhara: The Golden Girl's Inspiring Journey



Picture by Getty Images

Avani Lekhara, who is only 22 years old, has already made history at the Paralympics with her tale of incredible perseverance and unheard-of accomplishment. Lekhara, the brightest light in Indian Paralympic shooting, has inspired people all over the world with her incredible energy and commitment. She went from a terrible accident to becoming a global celebrity.

A Journey Through Adversity

Avani Lekhara's rise to fame is characterised by both outstanding accomplishments and difficult personal struggles. A car accident at the age of eleven left Lekhara paralysed from the waist down, putting her through a life-changing experience that might have shattered her goals. Rather, she used this misfortune as fire to pursue her goals. At the Tokyo 2020 Paralympics, she proved her unwavering spirit by winning gold in the R2 10m Air Rifle Standing SH1 event, making history as the first Indian woman to do so.

Defending the Title

Lekhara established her position as a fierce competitor by successfully defending her title in the women's 10m Air Rifle (SH1) category at the 2024 Summer Paralympics in Paris. Her triumph was evidence of her persistent commitment and perseverance as well as a continuation of her Tokyo achievement. Lekhara solidified her history in Paralympic shooting by being the first female para-athlete from India to accomplish this incredible feat—winning gold medals in back-to-back competitions.

A Champion's Spirit

Lekhara maintains her composure and focus in spite of her success. In sharp contrast to her great accomplishments, she radiates humility and a bright smile. Lekhara speaks with a feeling of quiet confidence and a clear vision for the future, despite her remarkable track record, which includes six gold from major international tournaments. She sees her accomplishments as stops along a journey that is far from finished.

In her own words, Lekhara reflects on her success: *"Winning gold at the Paralympics was not just about the medal but about overcoming the challenges and proving that limitations can be transcended. I'm excited about the future and the opportunities to push my boundaries even further".*

Recent Updates and Future Prospect

The journey of Avani Lekhara is far from over. She is still actively involved in the sport after winning in Paris 2024, competing in major tournaments and honing her craft. Her constant planning for forthcoming events demonstrates her commitment and unwavering determination.

Athletes and sports fans throughout are still motivated by Lekhara's narrative. Her accomplishments serve as a potent reminder of the resilience of the human spirit and the amazing things that may be accomplished with perseverance and hard effort.

Lekhara has a legacy that will hopefully inspire future generations, and she is poised to make waves in the world of Paralympic shooting in the years to come.

Here's something special about Avani Lekhara: besides her outstanding shooting skills, she's also a law student! Balancing her intense training schedule with her legal studies, Lekhara is proving that her determination extends beyond sports. Her love for learning and passion for justice keep her grounded, showing that her ambition is not just limited to the shooting range. This dedication to both academics and sports makes her an inspiring figure for young athletes, demonstrating that success in one field doesn't mean compromising in another!



©business standard

Bullseye in Paris: Unforgettable Wins and Records from the 2024 Paralympic Shooting Range



Mona Agarwal: From Adversity to Victory—India's Paralympic Star

In the world of sports, certain stories transcend the boundaries of the arena and touch the hearts of millions. Mona Agarwal's journey is one such inspiring tale—a narrative of courage, resilience, and triumph against all odds. The 36-year-old Indian para shooter has not only etched her name in the history books with a bronze medal at the Paris 2024 Paralympics, but she has also become a beacon of hope for women and athletes across the globe.

Early Life: Overcoming Adversity

Born in 1987 in Sikar, Rajasthan, Mona's life took an unexpected and challenging turn just nine months after birth when she contracted the polio virus. The virus affected both her lower limbs, leaving her with a permanent physical disability. To make matters worse, as the third girl child in her family, Mona faced societal pressures and familial mockery, amplifying the difficulties of her childhood.

Despite these challenges, Mona's spirit remained unbroken. She pursued her education relentlessly, eventually completing a degree in arts and later enrolling in a master's program in psychology through LPU's distance learning. Her background in psychology would later contribute to her remarkable mental fortitude in the highly demanding world of para shooting.

A Late Yet Impactful Entry into Shooting

Mona's journey into professional sports began late, only in December 2021, when she shifted her focus to para shooting after dabbling in other sports. In a short span, she made an indelible mark on the sport, with achievements that most athletes spend a lifetime chasing. Under the guidance of her coach, Yogesh Shekhawat, at Eklavya Sports Shooting Academy in Jaipur, Mona rapidly honed her skills and demonstrated an uncanny ability to handle pressure with grace.

Her meteoric rise began with her international debut at the World Cup in Osijek, Croatia, in July 2023, a year after she had clinched her first major title—gold at the Para Shooting World Cup in New Delhi, 2023. Mona's name soon became synonymous with grit and determination as she went on to win gold again at the Changwon World Cup in Korea in April 2024, setting an Asian record in the process.

Paris 2024 Paralympics: The Bronze Medalist's Triumph

Mona's defining moment came at the Paris 2024 Paralympics, where she competed in the Women's 10m Air Rifle SH1 event. In a nail-biting final, she displayed nerves of steel to secure a bronze medal, marking her maiden Paralympic appearance with a podium finish. Her fellow Indian para shooter, Avani Lekhara, captured the gold in the same event, making it a historic day for Indian women's shooting.

The Ultimate Champion Beyond Medals

Beyond her achievements on the shooting range, Mona Agarwal's story resonates deeply with those who have faced hardship. Her rise to prominence in the world of para shooting showcases the power of perseverance. As she continues to compete and inspire, she also juggles her role as a mother and a student of psychology, all while practicing under rigorous conditions at the shooting academy in Jaipur.

Mona's journey from being a girl mocked by her own family for her gender and disability, to becoming an international champion, serves as a powerful reminder of what women, particularly those with disabilities, can achieve when given the opportunity and support. Her story echoes far beyond the medals she has won, inspiring women and athletes around the world to pursue their dreams with conviction.

Looking Forward: A Future of Continued Excellence

Having already secured two World Cup gold medals and a Paralympic bronze, Mona shows no signs of slowing down. She continues to train with determination, aiming for further success in international competitions. Her goals extend beyond personal achievements; she hopes to inspire a new generation of athletes, especially women, to take up para sports and overcome their own barriers.

In every sense, Mona Agarwal embodies the spirit of a true champion—someone who, against all odds, rises to achieve greatness. Her story is not just one of medals and records, but of resilience, transformation, and the relentless pursuit of dreams. With her achievements in Paris, she has cemented her place in history, proving that with courage, anything is possible.

(Getty Images)



Manish Narwal: Triumph Against All Odds

Manish Narwal, born on October 17, 2001, is a celebrated Indian para pistol shooter whose journey from a small town in Haryana to the global stage epitomizes resilience and determination. Currently ranked fourth in the world in the Men's 10m Air Pistol SH1 category, Narwal's rise to prominence has been marked by significant achievements and a compelling story of overcoming adversity.

Early Life and Entry into Shooting

Manish's early years were fraught with challenges due to a congenital impairment in his right hand. Despite these hurdles, he was introduced to shooting in 2016 when his family took him to a local shooting range in Faridabad. His immediate attraction to the sport sparked a fervent dedication, and he began training rigorously. His early engagement with the sport was marked by a sheer love for the competitive nature of shooting, rather than an initial focus on the Paralympics.

Rapid Ascent in the Shooting World

Coach Jai Prakash Nautiyal recognized Manish's potential and took him under his wing. Under Nautiyal's guidance, Manish made his international debut at the 2017 Bangkok World Cup, where he clinched gold in the P1 - 10m Air Pistol SH1 event. This win was notable for setting a Junior World Record in both the qualification and final rounds. This early success set the stage for a series of remarkable achievements.

Paris Paralympics 2024: A Silver Triumph

In 2024, Manish continued to showcase his exceptional talent at the Paris Paralympics, where he won a silver medal in the Men's 10m Air Pistol SH1. His journey to this podium was a testament to his resilience, as he overcame an initial slow start to deliver a stellar performance in the final rounds. His silver medal added to India's medal tally and highlighted his ability to perform under pressure.



Historic Achievements

Manish's career reached a significant milestone at the 2020 Tokyo Paralympics. Despite facing a rocky start, he exhibited exceptional composure and skill, ultimately securing a gold medal in the Mixed P4 – 50m Pistol SH1 event. His performance at Tokyo not only brought him international acclaim but also earned him the prestigious Arjuna Award in 2020, a testament to his outstanding achievements and contributions to Indian sports.

Recognition and Future Prospects

Manish Narwal's achievements have been widely recognized, and he remains a prominent figure in the para shooting community. His success at various World Cups, including his gold medal victories and a bronze at the 2022 Asian Para Games, underscores his status as a top para shooter. Supported by the Olympic Gold Quest and under the mentorship of esteemed coaches, Manish is poised for continued success in future international competitions.

As he looks ahead to the 2026 Asian Para Games and beyond, Manish's story serves as a powerful example of how dedication, perseverance, and passion can lead to extraordinary accomplishments. His journey not only highlights his individual triumphs but also inspires countless others to pursue their dreams against all odds.

Overcoming Challenges

Manish's story is one of overcoming significant personal and societal challenges. Coming from a modest background and dealing with a physical impairment, he has consistently demonstrated extraordinary determination. His ability to maintain a positive demeanor, even when facing setbacks, has made him an inspirational figure.





Breaking Barriers: Rubina Francis Secures Historic Bronze at Paris 2024 Paralympics

Indian para-shooter Rubina Francis etched her name in the annals of sporting history at the Paris 2024 Paralympics by winning the bronze medal in the Women's 10m Air Pistol SH1 event. With an impressive score of 211.1, she became the first Indian woman to clinch a Paralympic medal in pistol shooting, a remarkable achievement that underscores her immense talent, resilience, and determination. Her success not only marked a personal victory but also became a beacon of hope for aspiring athletes across India.

A Journey Marked by Perseverance

Rubina Francis's journey to the podium was no ordinary feat. Born in Jabalpur, Madhya Pradesh, Rubina grew up facing financial hardships in a lower-middle-class family. Her father, Simon Francis, a strong pillar of support, ensured she could pursue her passion despite the challenges. Rubina, born with a leg dysfunction, discovered her love for shooting and decided to carve a niche for herself in the world of para-shooting.

Her inspiration came from Gagan Narang, an Olympic medalist, whose success sparked a fire within Rubina. In 2015, she began training rigorously, and in 2017, her hard work paid off when she was accepted into Gun for Glory Academy in Pune. There, she honed her skills under the guidance of mentors Jai Prakash Nautiyal and later, Jaspal Rana at the MP Shooting Academy. It wasn't long before Rubina made waves on the international stage.

Her performance at the 2018 France World Cup ignited her desire to compete at the highest level. By 2021, Rubina had secured her spot at the Tokyo Paralympics, making history as the first female pistol para-shooter to represent India. Although she finished seventh in Tokyo, it was a crucial learning experience that laid the foundation for her success at Paris 2024.

The Paris 2024 Triumph

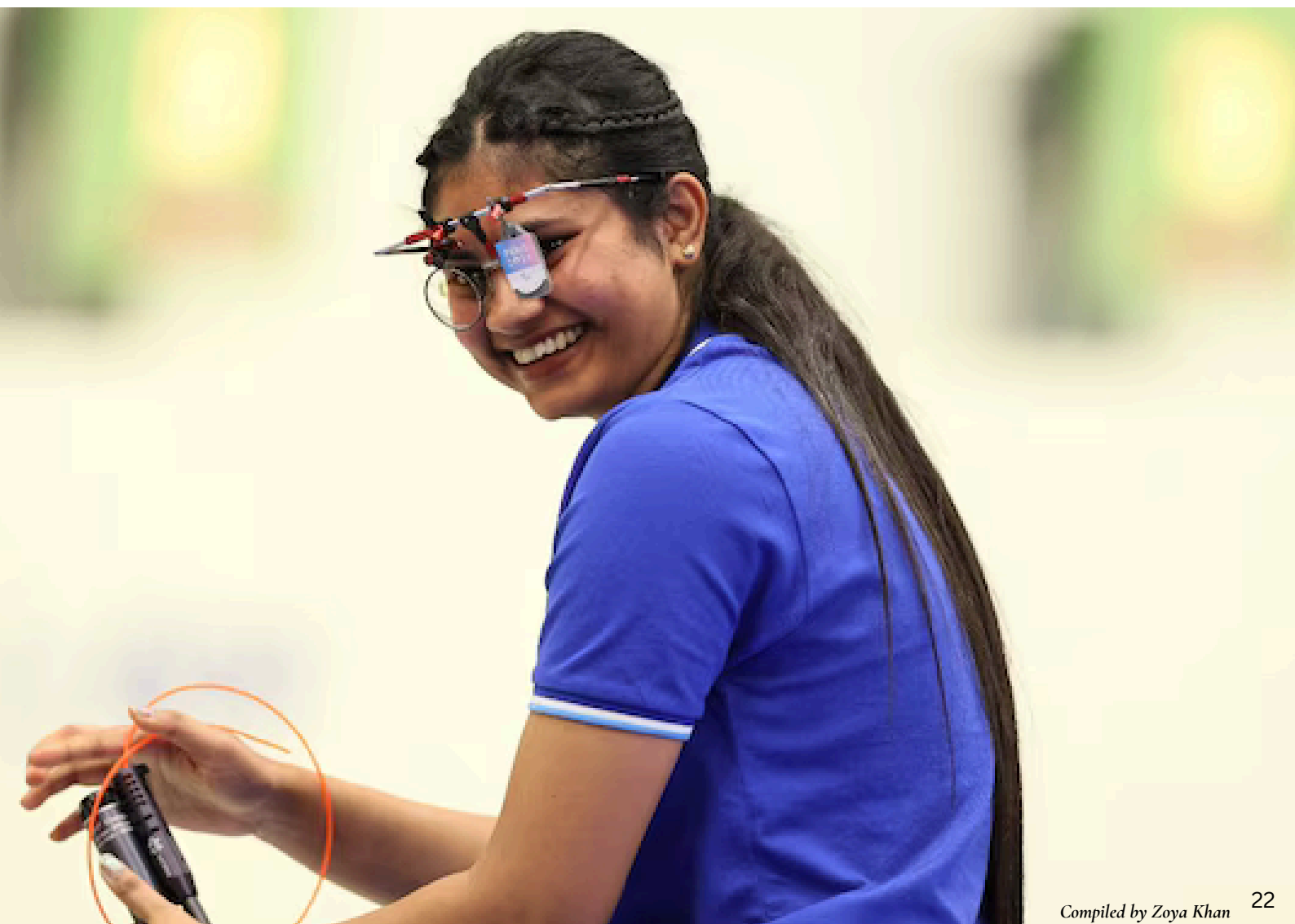
Paris proved to be a turning point for Rubina. After securing her spot through a bipartite quota, her journey to the Games was marked by determination. She faced stiff competition from the likes of Sareh Javanmardi of Iran, the Paralympic record holder, and Aysel Özgan of Turkey, the world record holder. Despite the pressure, Rubina showcased unwavering composure throughout the event.

A Future of Promise

Rubina Francis's journey to winning bronze at the Paris 2024 Paralympics is a powerful example of resilience, determination, and the importance of support systems. Her success is not only a personal triumph but a national milestone, with the backing of initiatives like the Target Olympic Podium Scheme (TOPS) playing a crucial role in her development. Her victory paves the way for future para-athletes, challenging stereotypes and demonstrating the potential of athletes with disabilities. Rubina's story is an inspiration, marking her as a trailblazer whose continued achievements will be eagerly watched by the world.

Resilience and Achievements

Rubina qualified for the finals with a score of 556, finishing sixth in the qualification round. In the final, she consistently stayed in the top four, ensuring her medal contention. After 20 shots, Rubina's score of 193 placed her second, securing a guaranteed podium finish. However, in a dramatic turn of events, her last two shots—9.2 and 8.9—allowed Turkey's Aysel Özgan to leap ahead and claim the silver, leaving Rubina to finish with a bronze.



Aiming for Gold: The 2024 Paralympic Shooting Champions

The 2024 Paralympic Games in Paris have seen an incredible display of skill, focus, and precision in shooting sports. Athletes from around the world brought their A-game to claim the top spots on the podium. From the dominance of seasoned Paralympic shooters to the rise of new talents, the shooting events have been nothing short of spectacular. Here's a round-up of the key winners who made their mark this year:

The Stars of the Range: Medalists in 2024 Paralympic Shooting



Event	Gold Medalist	Silver Medalist	Bronze Medalist
<u>R2 - Women's 10m Air Rifle Standing SH1</u>	Avani Lekhara (IND)	Lee Yunri (KOR)	Mona Agarwal (IND)
<u>P1 - Men's 10m Air Pistol SH1</u>	Jo Jeongdu (KOR)	Manish Narwal (IND)	Yang Chao (CHN)
<u>R4 - Mixed 10m Air Rifle Standing SH2</u>	Francek Gorazd Tirsek (SLO)	Tanguy de La Forest (FRA)	Seo Huntai (KOR)
<u>R1 - Men's 10m Air Rifle Standing SH1</u>	Park Jinho (KOR)	Yerkin Gabbasov (KAZ)	Martin Black Joergensen (DEN)
<u>P2 - Women's 10m Air Pistol SH1</u>	Sareh Javanmardi (IRI)	Aysel Ozgan (TUR)	Rubina Francis (IND)
<u>R3 - Mixed 10m Air Rifle Prone SH1</u>	Veronika Vadovicova (SVK)	Radoslav Malenovsky (SVK)	Juan Antonio Saavedra (ESP)
<u>R5 - Mixed 10m Air Rifle Prone SH2</u>	Tanguy de La Forest (FRA)	Alexandre Galgani (BRA)	Mika Mizuta (JPN)
<u>P3 - Mixed 25m Pistol SH1</u>	Yang Chao (CHN)	Yan Xiao Gong (USA)	Kim Jungnam (KOR)
<u>R7 - Men's 50m Rifle 3 Positions SH1</u>	Park Jinho (KOR)	Dong Chao (CHN)	Marek Dobrowolski (POL)
<u>R8 - Women's 50m Rifle 3 Positions SH1</u>	Natascha Hiltrop (GER)	Veronika Vadovicova (SVK)	Zhang Cuiping (CHN)
<u>P4 - Mixed 50m Pistol SH1</u>	Yang Chao (CHN)	Server Ibragimov (UZB)	Davide Franceschetti (ITA)
<u>R9 - Mixed 50m Rifle Prone SH2</u>	Dragan Ristic (SRB)	Vladimer Tchintcharauli (GEO)	Tim Jeffery (GBR)
<u>R6 - Mixed 50m Rifle Prone SH1</u>	Natascha Hiltrop (GER)	Anna Benson (SWE)	Jean-Louis Michaud (FRA)

Key Highlights:

- Avani Lekhara, the star shooter from India, clinched gold in the Women's 10m Air Rifle Standing SH1, continuing her stellar performance after her success in previous games.
- Jeongdu of South Korea emerged victorious in the Men's 10m Air Pistol SH1, beating tough competitors from India and China.
- Tanguy de La Forest from France took home two medals, including gold in the Mixed 10m Air Rifle Prone SH2, making it a thrilling event for the home crowd.

The variety of countries represented on the podium shows just how widespread talent is in the Paralympic shooting community, from India and Korea to France and Slovakia. Each athlete demonstrated immense control, focus, and determination to excel on the world stage.

This was a standout year for Paralympic shooting, and the athletes' stories of resilience and excellence truly inspire. Whether they walked away with a medal or personal bests, each shooter left a lasting mark on the 2024 Games.

Paralympic Shooting Events: A Breakdown of Competitions and Classifications



The sport of paralympic shooting honours precision, focus, and resilience. Similar to its Olympic corresponding Paralympic shooting is an extremely skilled sport, but it differs in that it allows competitors with physical disabilities to participate through an elaborate qualification system. Understanding the classes and event structure is essential for fans who are new to the sport in order to fully appreciate the intense level of competition. To make it easier for you to follow the action, this article breaks down the many categories and events in Paralympic shooting.

Classification System in Paralympic Shooting

Paralympic shooting events are divided into two major classification groups based on the athletes' physical abilities:

- **SH1 Classification:** Athletes in the SH1 class have an impairment that affects their legs, but they are able to support and operate the firearm without external assistance. These athletes can compete in both rifle and pistol events. In the SH1 rifle events, for instance, Indian shooter *Avani Lekhara* is an exemplary example in this category; despite being paralysed from the waist down, she created history at the Tokyo 2020 Paralympics by capturing numerous medals, including a gold.
- **SH2 Classification:** Athletes in the SH2 class have impairments that affect their arms and legs, making it impossible to hold the firearm independently. These athletes use specialized shooting stands to help stabilize their rifles during competition.
- An example of this class's resilience is *Michael Johnson*, a competitor in SH2 events from New Zealand. Johnson employs adapted technology to compete with extraordinary precision in rifle shooting competitions despite having a disability in his arm.

Pistol Events (SH1 Classification Only)

Pistol events in Paralympic shooting are only available to athletes in the SH1 classification. These events test athletes' ability to shoot accurately over varying distances using air pistols or small-caliber pistols.

- **P1 – Men's 10m Air Pistol SH1:** Athletes shoot from a standing or seated position (if necessary) at a target 10 meters away using an air pistol. Iranian shooter *Mahdi Zadeh* has consistently earned podium finishes in international competitions.
- **P2 – Women's 10m Air Pistol SH1:** Similar to the men's P1 event, this event sees female athletes competing in a 10-meter air pistol event.

Sareh Javanmardi of Iran is a standout in this category. She became the first female Iranian Paralympic champion in shooting, securing multiple gold medals at both the Rio 2016 and Tokyo 2020 Paralympics. Her success has not only made her a role model in Iran but also elevated the visibility of women in Paralympic shooting worldwide.

- *P3 – Mixed 25m Pistol SH1:* In this event, athletes shoot from 25 meters away, incorporating both precision and rapid-fire stages. Manish Narwal, an Indian shooter, is a prominent figure in the P3 event. He made history at the Tokyo 2020 Paralympics, where he won gold in the mixed 50m pistol event.
- *P4 – Mixed 50m Pistol SH1:* This event involves athletes shooting from 50 meters using a .22 caliber pistol in a precision-based competition. Olivera Nakovska-Bikova from North Macedonia. She won gold at the London 2012 Paralympics, making history as the first athlete from her country to win a Paralympic gold.



Olivera Nakovska-Bikova (herstory.pro)

Rifle Events (SH1 and SH2 Classifications)

Rifle events are available to both SH1 and SH2 athletes, with events divided by shooting distance and position. Athletes shoot either standing or prone (lying down), depending on their classification and event type.

SH1 Rifle Events

- *R1 – Men's 10m Air Rifle Standing SH1:* In this event, male athletes shoot from a standing position or seated (if necessary), at a target 10 meters away using an air rifle. Jonas Jacobsson from Sweden is one of the most decorated Paralympians in history. Competing in various rifle events, including the R1 10m Air Rifle Standing, Jacobsson has secured numerous gold medals over the course of nine Paralympic Games.
- *R2 – Women's 10m Air Rifle Standing SH1:* Female athletes compete in a similar 10-meter air rifle standing event, focusing on stability and precision. Veronika Vadovicova from Slovakia is a notable athlete in this category. She made headlines by becoming the first Slovakian Paralympic champion in shooting and has continued to demonstrate exceptional form and consistency in SH1 rifle events.
- *R3 – Mixed 10m Air Rifle Prone SH1:* This event involves athletes from both genders shooting from a prone position at 10 meters. Michael Johnson of New Zealand is a standout shooter in the R3 category.

SH2 Rifle Events

- *R4 – Mixed 10m Air Rifle Standing SH2:* In this event, athletes with more severe impairments use a shooting stand for support while shooting at a target from a standing position (or seated, as required). British shooter Ryan Cockbill is a prime competitor in SH2 events, using a shooting stand to stabilize his rifle and consistently hitting the mark in international competitions.
- *R5 – Mixed 10m Air Rifle Prone SH2:* Similar to R4, but athletes shoot from a prone position using a stand to support the rifle. Matt Skelhon of Great Britain is a top contender in this event.
- *R6 – Mixed 50m Rifle Prone SH1:* Athletes shoot from a prone position at 50 meters using a .22 caliber rifle, which requires extreme precision. Abdullah Sultan Alaryani from the UAE is a leading figure in the R6 event. Having transitioned from competing in Olympic shooting to Paralympic events, Alaryani has proven his incredible skill by winning gold at the London 2012 Paralympics and maintaining a top-ranking position in world shooting events.

General Event Format

- *Standing Events:* In standing competitions, competitors can shoot while seated or standing depending on their physical impairment. While SH2 competitors rely on shooting supports to help stabilise their rifles, SH1 athletes may wield their guns without assistance.
- *Prone Events:* In prone events, competitors aim for increased stability by lying down. Competitors from SH1 and SH2 compete in these events; SH2 participants need extra adaptive gear.
- *Mixed Events:* In mixed events, male and female athletes compete together, creating an inclusive and competitive atmosphere.

Weapons and Distances in Paralympic Shooting

- *10m Events:* These events use air pistols and air rifles. The 10m range is designed to test athletes' precision and control in close-quarter shooting.
- *25m and 50m Events:* In these events, athletes use .22 caliber pistols and rifles, shooting from longer distances, which demands greater skill and steadiness.

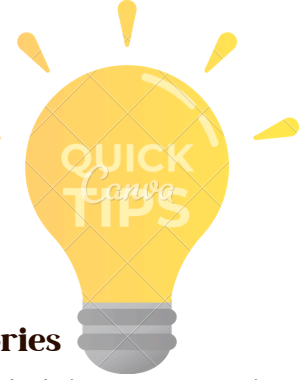
A Sport of Precision, Patience, and Perseverance

Mental strength, precision, and focus are all combined in paralympic shooting. It is expected of athletes to show consistent firearm control, remain composed under duress, and make precise shots every time. It is demonstrated by competitors such as Avani Lekhara, Sareh Javanmardi, and Michael Johnson that physical limitations are obstacles that can be conquered with resilience and determination.



A representative photo of para shooting (Photo credit: Paralympics)

Paralympic Shooting Events: A Spectator's Guide



Event Categories

Paralympic shooting events are divided into two main categories:

Rifle Events: These include three primary disciplines:

- *R2 10m Air Rifle Standing SH1:* Shooters aim from a standing position with a focus on accuracy and control.
- *R3 10m Air Rifle Prone SH1:* Competitors shoot from a prone position, which allows for increased stability and precision.
- *R4 50m Rifle 3 Positions SH1:* Athletes shoot from three different positions—standing, kneeling, and prone—demonstrating versatility and adaptability.

Pistol Events: Key disciplines include:

- *P1 10m Air Pistol SH1:* Shooters aim from a standing position, with emphasis on precision and control.
- *P2 25m Pistol SH1:* This event requires athletes to shoot from a standing position with a focus on accuracy over a longer distance.

Rules and Scoring

Shooting events are governed by precise rules and scoring systems:

- *Precision and Accuracy:* Athletes are scored based on their accuracy, with targets scored in a bullseye pattern. The closer a shot is to the center, the higher the score.
- *Time Limits:* Competitors have a set amount of time to complete their shots. Managing time effectively while maintaining precision is a key aspect of the sport.
- *Finals Format:* Many events feature a final round where the top shooters from the qualification round compete for medals. The final round often involves a series of rapid-fire shots, adding to the excitement and intensity.

Classification and Categories

Paralympic shooting is divided into two main classifications based on the athletes' physical impairments:

- *SH1:* For athletes who can hold and aim a rifle or pistol without additional support.
- *SH2:* For athletes who require additional support, such as a shooting stand or harness, due to their physical impairment.

Understanding these classifications helps spectators appreciate the different levels of support and adaptation required for each athlete, adding depth to the viewing experience.

Spectator Tips

- *Understand the Equipment:* Familiarize yourself with the different types of rifles and pistols used in Paralympic shooting. Knowing how the equipment works enhances your appreciation of the athletes' skill and precision.
- *Watch for Technique:* Pay attention to the athletes' posture, breathing, and control. These elements are crucial for achieving accuracy and showcase the high level of training involved.
- *Embrace the Stories:* Each athlete has a unique journey and personal challenges. Learning about their stories adds an emotional layer to the competition, making the victories and performances even more inspiring.

Paralympic shooting events offer an incredible blend of skill, strategy, and emotional depth. By understanding the event categories, classifications, and rules, spectators can fully appreciate the dedication and talent of the athletes. Whether you're a seasoned fan or new to the sport, this guide will help you make the most of your viewing experience and celebrate the remarkable achievements of Paralympic shooters. Enjoy the spectacle and be inspired by the extraordinary athletes who push the boundaries of what's possible in the world of shooting sports.



Slovenian SH2 Para athlete Franček Gorazd Tiršek, who won two silver medals in Paralympic Games (SH2 10m air rifle standing: 2012 London, 2016 Rio) with his specially adapted chair and spring support stand. Like other shooting equipment, the spring is also subject to strict regulations.
Source: Aimingart.com

Adaptive Equipment and Technology in Paralympic Shooting

In order to compete successfully in the sport of paralympic shooting, athletes with disabilities sometimes require specialised equipment. Paralympic shooters are able to surpass their physical limitations and achieve exceptional performance because of the latest advancements in assistive technology and adaptable equipment. These athletes can compete well in shooting events because of the following important adaptive technologies:

1. Specialized Shooting Stands

Equipment: Adjustable Shooting Stands

For athletes in wheelchairs or with limited mobility, specialised shooting stands offer vital stability and support. By keeping the rifle stable, these stands help athletes in maintaining proper shooting postures. These stands may be adjusted to match particular requirements in terms of height, angle, and location, enabling shooters to compete in comfort.

2. Supportive Seating and Harness Systems

Equipment: Customized Wheelchair Mounts, Shooting Harnesses

For Paralympic shooters, maintaining stability and precision is crucial for success. This is where supportive seating and harness systems come into play. Customized wheelchair mounts are specially designed to help seated athletes maintain the perfect shooting posture. These mounts are tailored to the specific needs of the athlete, ensuring their wheelchair is securely positioned, allowing for optimal alignment and balance during each shot.

In addition to seating, shooting harnesses play a pivotal role by stabilizing the athlete's torso. These harnesses minimize unnecessary movements, especially for shooters with limited control over their upper body, allowing them to focus entirely on their target.

3. Target Scoring Systems

Equipment: Electronic Target Scoring Systems

In Paralympic shooting, electronic target scoring systems are used to provide instant and accurate feedback on each shot. These systems can detect the exact location of the bullet on the target and relay the information in real time, allowing athletes and coaches to evaluate performance without delay.

4. Advanced Sight Aids

Equipment: Electronic Sights, Laser Sights, Telescopic Sights, Acoustic Shooting Systems

For athletes with visual impairments, sight aids are game-changers. Electronic sights and telescopic sights enhance the athlete's ability to focus on distant targets, offering clear, magnified views. Laser sights provide pinpoint accuracy by projecting a beam directly onto the target, helping shooters refine their aim. Acoustic shooting devices are designed for athletes who are blind or visually challenged. As the shooter gets closer to the target's centre, these gadgets translate visual data into auditory signals that are louder or more frequent. This enables athletes to aim without utilising visual signals by employing audio cues instead.

6. Assistive Technology for Training

Equipment: Virtual Reality Training Systems, Motion Sensors

The way Paralympic shooters train has been completely transformed by modern technology. Systems for training in virtual reality (VR) replicate a variety of shooting settings, from difficult environmental circumstances to competitive, stressful circumstances. Athletes may train using these devices even when they are not physically present at the range, which is very helpful when getting ready for international competitions. Another important instrument is a motion sensor, which examines every facet of an athlete's shooting form and technique. With the use of these sensors, athletes may improve their performance and fix little errors in real time.

Compiled by Astha Bisht

5.. Adaptive Trigger Mechanisms

Equipment: Adjustable Trigger Mechanisms, Pneumatic Triggers, Ergonomic Grips

Rifle fire is made easier for shooters with lack of strength or dexterity by adaptable trigger devices. The force required to fire these triggers can be decreased by adjusting them. Air pressure activates pneumatic triggers, which is beneficial for athletes who have trouble pulling off traditional trigger pulls. Athletes with limited hand mobility can also benefit from ergonomic grips or hand switches, which make it easier for them to handle their guns and fire precisely.



Sustainability in Paralympic Sports: How Shooting Events are Going Green

As the world becomes more environmentally conscious, the realm of sports is increasingly embracing sustainability. Paralympic shooting is leading the way in adopting green practices, ensuring that the future of this prestigious sport is not only inclusive but also environmentally responsible. Let's explore the journey of Paralympic shooting towards sustainability, examining innovations like green ranges, eco-friendly equipment, and the commitment to reducing environmental impact.



The Environmental Impact of Shooting Sports

Shooting sports have traditionally faced scrutiny due to the environmental hazards posed by lead-based ammunition, energy-intensive ranges, and equipment waste. As these challenges grow more evident, the sport of shooting has made strides in reducing its ecological footprint:

- **Lead Pollution:** Lead ammunition has long been recognized as a major pollutant, contaminating soil and water.
- **Energy Use:** Shooting ranges require significant amounts of power for lighting, ventilation, and temperature control.
- **Waste Generation:** Spent casings, broken targets, and other shooting debris contribute to the sport's waste footprint.

Addressing these concerns is critical for the long-term sustainability of Paralympic shooting.

Green Shooting Ranges: Pioneers in Sustainability

Many shooting schools and training centers are championing sustainability by building "green ranges", incorporating solar power, energy-efficient lighting, and eco-friendly targets. These facilities are designed to reduce their carbon footprint while still providing world-class training environments for para-athletes.

Notable Green Shooting Ranges:

- **National Shooting Centre, Deodoro (Brazil):** Built for the 2016 Paralympic Games, this venue is a model of sustainability. Solar panels and rainwater harvesting systems help reduce energy and water usage.
- **Olympic Shooting Centre, Munich (Germany):** Known for its commitment to sustainability, this range uses recycled materials and energy-efficient systems.
- **Gachibowli Shooting Range, Hyderabad (India):** This facility is transitioning to solar energy and eco-friendly ammunition, making strides in reducing its environmental impact.

These ranges demonstrate that it's possible to support Paralympic shooters while minimizing environmental harm.

Lead-Free Ammunition: A Green Alternative

A pivotal advancement in the move towards sustainability is the introduction of lead-free ammunition. This shift reduces the harmful impact of lead on the environment, without sacrificing performance for athletes. Alternatives like copper-based bullets and biodegradable casings offer effective, eco-friendly solutions.

Key Benefits:

- *Non-toxic materials:* Reducing lead pollution.
- *Biodegradable components:* Minimizing waste left behind on ranges.

By adopting lead-free ammunition, the sport not only reduces pollution but also helps protect the health of athletes and surrounding ecosystems.

Paralympic Shooting's Commitment to Sustainability

The International Paralympic Committee (IPC) is committed to promoting sustainability across all sports, including shooting. Here's how the IPC is leading the way:

- *Sustainability Strategy 2030:* The IPC has a detailed roadmap aimed at making all Paralympic events carbon-neutral by 2030. This includes reducing carbon emissions, promoting recycling, and advocating for greener energy sources.
- *Partnership with Eco-Friendly Brands:* The IPC partners with brands that emphasize sustainability, from ammunition suppliers to equipment manufacturers. These collaborations help bring eco-conscious products into mainstream use at Paralympic events.
- *Environmental Education Campaigns:* The IPC runs education campaigns to promote sustainability within the shooting community. Athletes, coaches, and fans are encouraged to take part in environmentally friendly practices such as reducing waste and using public transportation.

Energy Efficiency in Shooting Venues

To further reduce the carbon footprint of Paralympic shooting events, many venues are transitioning to solar-powered energy systems and LED lighting. This helps significantly reduce the environmental impact of events, especially for indoor ranges that require significant power consumption.

Innovations include:

- *Solar panels:* Harnessing renewable energy for day-to-day operations.
- *LED Lighting:* Reducing electricity consumption while improving range visibility.
- *Smart energy systems:* Optimizing air conditioning and ventilation to save energy during training and competition.



Andrew Parsons and Marina Ponti signed agreement to advance the Sustainable Development Goals (SDGs)

©Ralf Kuckuck

By IPC

Shooting Schools for Paralympic Shooters

Going Green

Several shooting schools dedicated to para-athletes are leading the charge in eco-friendly practices. These schools are not only helping athletes hone their skills but also contributing to a more sustainable sporting future:

- *National Rifle Association of India (NRAI)*: As one of the top shooting training centers for para-athletes, NRAI is taking steps toward making its ranges more energy-efficient by adopting LED lighting and water conservation practices.
- *Royal Berkshire Shooting School (UK)*: Known for its solar-powered range and sustainable building materials, this school is setting an example for other institutions to follow.
- *European Shooting Confederation (ESC) Training Facilities (Various Locations in Europe)*: Actively promoting sustainability across its training centers by reducing single-use plastics through the adoption of reusable bottles and equipment, offering online training materials to minimize the need for printed documents, and encouraging carpooling and the use of public transportation to lower travel emissions during competitions and events.



National Rifle Association of India (NRAI) Image Courtesy: Getty



Royal Berkshire Shooting School (UK) Image Courtesy: The Field



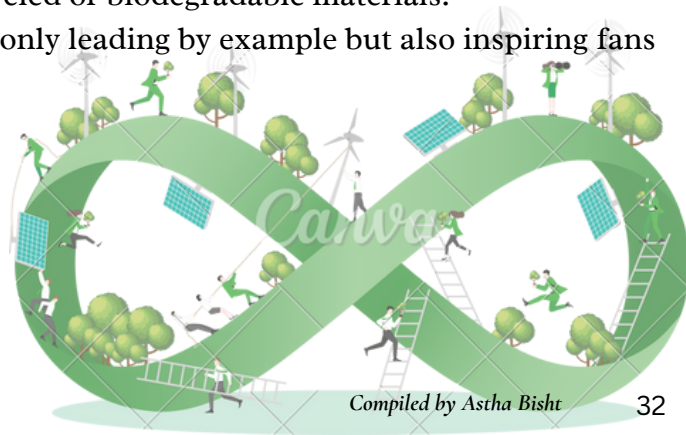
European Shooting Confederation (ESC) <https://escshooting.org/photo>

Athletes Advocating for Sustainability

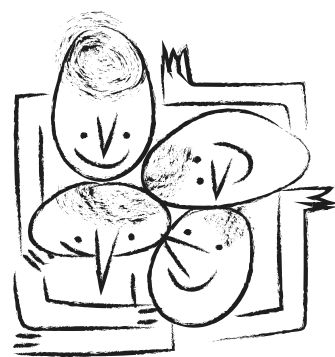
Paralympic shooters are increasingly taking steps to promote eco-friendly practices, both within the sport and beyond. Here are some ways athletes are leading the charge for sustainability:

- **Carpooling**: Athletes like Avani Lekhara are encouraging fellow shooters to reduce travel emissions by carpooling to training sessions and competitions, significantly lowering their carbon footprint.
- **Reusable Gear**: Many athletes are opting for eco-friendly, reusable gear, including water bottles, containers, and equipment bags, reducing the amount of single-use plastic and waste generated during events.
- **Sustainable Sponsorships**: Shooters such as Veronika Vadovicova have partnered with environmentally responsible brands, ensuring that their gear and endorsements are aligned with sustainability goals. These partnerships often feature products made from recycled or biodegradable materials.

By incorporating these practices, Paralympic shooters are not only leading by example but also inspiring fans and the broader community to adopt greener lifestyles.



Shooting for Inclusion: Paralympics and Beyond



The sport of shooting is often seen through the lens of precision, focus, and resilience. It demands unwavering concentration, physical control, and mental discipline—qualities shared by athletes across the board. But within this community, a significant movement has been brewing, one that is redefining the sport's reach and bringing a powerful message of inclusion: the rise of Paralympic shooting.

Paralympic shooting has carved out its own space in the larger landscape of competitive shooting, and in doing so, it is not only empowering athletes but also challenging societal perceptions about disability. The sport has become a shining example of how the boundaries of physical limitations can be pushed, proving that with determination and the right support, there's no such thing as an "impossible shot."

The Rise of Paralympic Shooting

Shooting first made its Paralympic debut in 1976 at the Toronto Games. Since then, it has grown steadily in popularity and inclusivity, providing athletes with physical impairments a global platform to showcase their skills. With categories for athletes with varying types of disabilities, including spinal cord injuries and limb amputations, Paralympic shooting emphasizes both fairness and opportunity.

In the Paralympic Games, shooting is divided into rifle and pistol events, with athletes competing in seated or standing positions depending on their classification. Adaptive equipment ensures that athletes can perform at their best while maintaining the integrity of the sport's demanding technical aspects. Precision, timing, and mental endurance remain key, underscoring that excellence in shooting transcends physical ability.

In the Paralympic Games, shooting is divided into rifle and pistol events, with athletes competing in seated or standing positions depending on their classification. Adaptive equipment ensures that athletes can perform at their best while maintaining the integrity of the sport's demanding technical aspects. Precision, timing, and mental endurance remain key, underscoring that excellence in shooting transcends physical ability.

Shooting as a Path to Empowerment

One of the most powerful aspects of Paralympic shooting is the way it serves as a tool for empowerment. For many athletes, the journey into the sport comes after life-altering experiences—whether due to injury, illness, or congenital conditions. Shooting offers not only a chance to compete at the highest levels but also a sense of purpose and belonging.



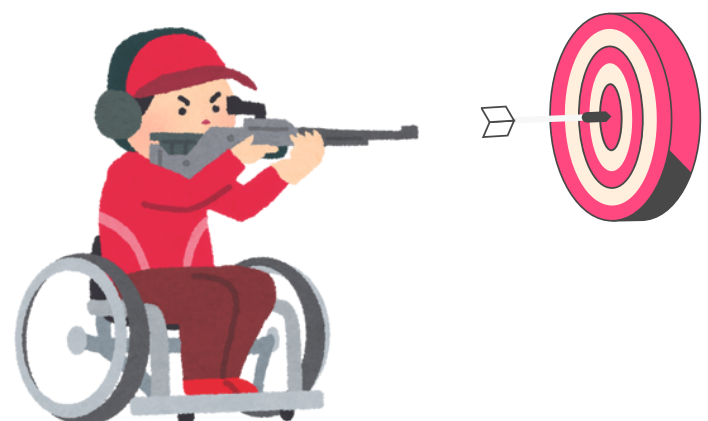
Athletes like India's Avani Lekhara, who won gold at the Tokyo 2020 Paralympics, are redefining what it means to be a champion. Avani's story is one of resilience, having sustained a spinal cord injury at a young age that left her paralyzed from the waist down. Her victory in the 10m Air Rifle Standing SH1 category was historic, making her the first Indian woman to win a gold medal in shooting at the Paralympics. Her journey inspires others with disabilities to take up the sport and dream big, proving that shooting is not just about physical skill but mental toughness.

Expanding Opportunities Beyond the Paralympics

While the Paralympic Games provide a crucial platform, the inclusion of athletes with disabilities in shooting needs to extend beyond the Games. National and international shooting federations are actively working to ensure that athletes of all abilities have opportunities to compete at all levels. In countries like India, where shooting is a fast-growing sport, programs to integrate differently-abled athletes are taking root.

The Paralympic Committee of India, along with various shooting academies, are developing training facilities that cater to these athletes' specific needs. This increased accessibility opens doors not only to Paralympic glory but also to greater participation in national-level competitions.

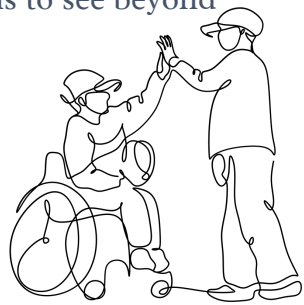
Moreover, organizations such as the International Paralympic Committee (IPC) and the International Shooting Sport Federation (ISSF) are collaborating to raise awareness and create more inclusive environments in which athletes with disabilities can thrive. These efforts are crucial in breaking down barriers and ensuring that the playing field is open to everyone, regardless of physical limitations.



The Future of Inclusion in Shooting

The future of shooting as an inclusive sport looks bright, but challenges remain. Greater investment in adaptive technologies and coaching expertise will help bridge the gap between able-bodied and differently-abled athletes. More awareness campaigns and grassroots initiatives can encourage people with disabilities to consider shooting as a viable sport to pursue, whether for recreation or at the competitive level.

One of the most important steps toward greater inclusion is ensuring equal visibility. Paralympic shooters, like their Olympic counterparts, deserve media coverage, sponsorship opportunities, and recognition. Only by promoting these athletes' achievements can we shift public perception and inspire future generations to see beyond physical limitations.



To Conclude -

Shooting is a sport that rewards patience, skill, and mental resilience—all qualities that transcend the body's physical condition. As Paralympic shooting continues to rise in prominence, it serves as a testament to the power of inclusion and the limitless potential of human ability. With increasing support, awareness, and opportunities for all athletes, shooting stands poised to be a beacon of equality—not just in the Paralympics but beyond.

Their stories inspire not just fellow athletes, but entire communities to rethink the boundaries of possibility. As we look ahead, it's clear that the future of shooting will be defined by the perseverance and passion of those who continue to push the sport—and society—forward.





Shooting Schools and Training Centers for Para Athletes: Nurturing Champions



Introduction

The world of competitive shooting is one where precision, focus, and mental resilience reign supreme. For para athletes, these qualities take on an even deeper meaning as they navigate the unique challenges of their sport. But behind every Paralympic champion or national-level competitor, there is a robust support system—a network of shooting schools and training centers that have dedicated themselves to developing these athletes into world-class shooters.

The rise of para shooting in recent years has highlighted the need for specialized training facilities that cater to athletes with disabilities. These centers are not just places for physical practice, but hubs of innovation, adaptation, and empowerment. They are where para athletes hone their craft, perfect their aim, and mentally prepare for the world's biggest stages.

A New Era in Training Facilities



Shooting schools for para athletes have evolved significantly over the past decade, fueled by the increasing visibility of the sport in the Paralympics and the growing number of aspiring athletes entering the field. The first step in creating an effective training environment is understanding that athletes with disabilities require a unique approach—one that combines traditional shooting techniques with adaptive technologies and tailored coaching.

Centers like the Indian Sports Authority's (SAI) shooting academies, in collaboration with the Paralympic Committee of India, have become key players in providing this support. These facilities feature state-of-the-art shooting ranges and accessible training environments, allowing athletes to practice in both rifle and pistol categories. Coaches here are trained not only in the technical aspects of the sport but also in the specific needs of para athletes, such as the use of assistive devices or customized seating arrangements for athletes with mobility impairments.

Adaptive Equipment and Technology

The rapid advancement of technology has played a crucial role in transforming para shooting schools into specialized hubs of innovation. Adaptive equipment is at the heart of para shooting training, ensuring that athletes can perform at their peak despite physical limitations. This includes specialized rifles and pistols, custom grips for amputees, and stable seating for shooters with spinal cord injuries.

Training centers are now incorporating cutting-edge technology such as electronic targets and real-time scoring systems, allowing para athletes to monitor their progress with precision. These technologies provide crucial feedback on areas like shot placement and timing, helping athletes fine-tune their technique with unparalleled accuracy. The combination of adaptive gear and advanced training tools has been a game-changer for para shooting, raising the bar for what these athletes can achieve.



Mentorship and Mental Conditioning

- One of the defining aspects of shooting as a sport is the mental endurance it requires. For para athletes, the journey into competitive shooting often involves overcoming not just physical barriers but psychological ones as well. This is why many training centers emphasize mentorship and mental conditioning as part of their holistic approach to training.
- Mentorship programs have proven invaluable for para athletes. Having access to seasoned shooters and Paralympic champions can inspire and guide newcomers through the ups and downs of their training journey. This peer support system fosters a sense of community, reminding athletes that they are not alone in their challenges or their victories.
- Equally important is the focus on mental conditioning, an area where shooting schools are increasingly investing resources. Para athletes undergo rigorous psychological training, learning how to manage stress, maintain focus, and stay calm under pressure—qualities that are essential when competing at the highest levels. Programs in mindfulness, visualization, and performance psychology are now standard at many top shooting academies.

A Global Movement Toward Inclusion

The growing number of training centers for para shooters is a testament to the global movement toward inclusion in sports. Countries like Germany, China, the U.S., and India are at the forefront of this shift, with numerous national and international-level shooting schools opening their doors to para athletes. These centers are committed to providing equal opportunities, ensuring that para shooters have the same access to high-quality training as their able-bodied counterparts.

In India, the Dr. Karni Singh Shooting Range in Delhi has become a hub for para shooting, hosting national camps and serving as the training ground for some of India's top para athletes, including Tokyo 2020 gold medalist Avani Lekhara. Similar initiatives have been undertaken in other countries, as governments and sporting organizations recognize the importance of creating inclusive environments for athletes of all abilities.

Conclusion: Nurturing the Next Generation of Para Shooters

Shooting schools and training centers for para athletes are not just places where champions are made—they are where dreams are nurtured, and barriers are broken. Through a combination of adaptive technology, expert coaching, and mental conditioning, these centers provide para athletes with the tools they need to succeed on the world stage.

As these institutions continue to grow, they offer more than just physical training—they foster a sense of belonging and empowerment. The camaraderie and shared experiences among athletes create a strong support system, motivating them to push beyond their perceived limits. By nurturing both skill and mindset, these centers are helping to redefine what it means to be a champion in the world of para sports.



Breaking Barriers: *Female Paralympic Shooters*



Carve Their Legacy on the World Stage

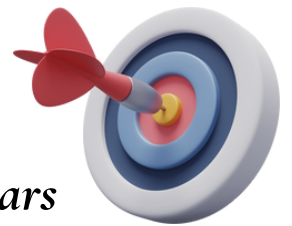
Shooting is a sport of precision and patience, but for female Paralympic shooters, it's also a test of resilience and spirit. Across the globe, these women have not only mastered the art of hitting targets but have also shattered stereotypes, overcoming disabilities to emerge as champions. From India to Europe, their stories of triumph are testaments to human perseverance. Let's take a deeper look into the achievements of female Paralympic shooters, highlighting their contribution to the sport and the rich tapestry of excellence they weave—both globally and in India.

Sarah Storey, a British sporting icon, might be better known for her achievements in cycling, but her origins in Paralympic shooting are noteworthy. Storey was a Paralympic swimmer before transitioning into shooting, demonstrating how Paralympians often possess versatile athletic talent.

In Germany, *Natascha Hiltrop* is another name that cannot be overlooked. After years of honing her skills, Hiltrop took home silver at the Rio 2016 Paralympic Games and later struck gold in Tokyo 2020 in the Women's 10m Air Rifle Standing SH1 event. Her technical mastery and mental fortitude have positioned her as one of the top athletes in the sport.



International Pioneers: Paralympic Shooting Stars



At the international level, *Veronika Vadovičová* of Slovakia has long been a formidable name in the sport. A Paralympic legend, she has consistently dominated Paralympic shooting since her debut at the Sydney 2000 Games. Vadovičová claimed Slovakia's first-ever Paralympic gold in shooting at the 2008 Beijing Games in the Women's 10m Air Rifle Standing SH1 category. Her success continued with multiple medals in subsequent Games, including gold in both the 10m Air Rifle Standing and 50m Rifle Prone events at Rio 2016. Veronika's consistency and excellence over the years have cemented her as one of the most celebrated shooters in Paralympic history.

India's history in the Paralympics

India's para-shooting is rapidly gaining recognition, with Avani Lekhara at the forefront. Avani's historic gold in the 10m Air Rifle SH1 and bronze in the 50m Rifle 3 Positions SH1 at Tokyo 2020 made her the first Indian woman to win multiple medals at a single Paralympic Games. She is joined by Rubina Francis, who broke the world record in the 10m Air Pistol SH1 event, showing immense promise as one of India's top para-shooters.

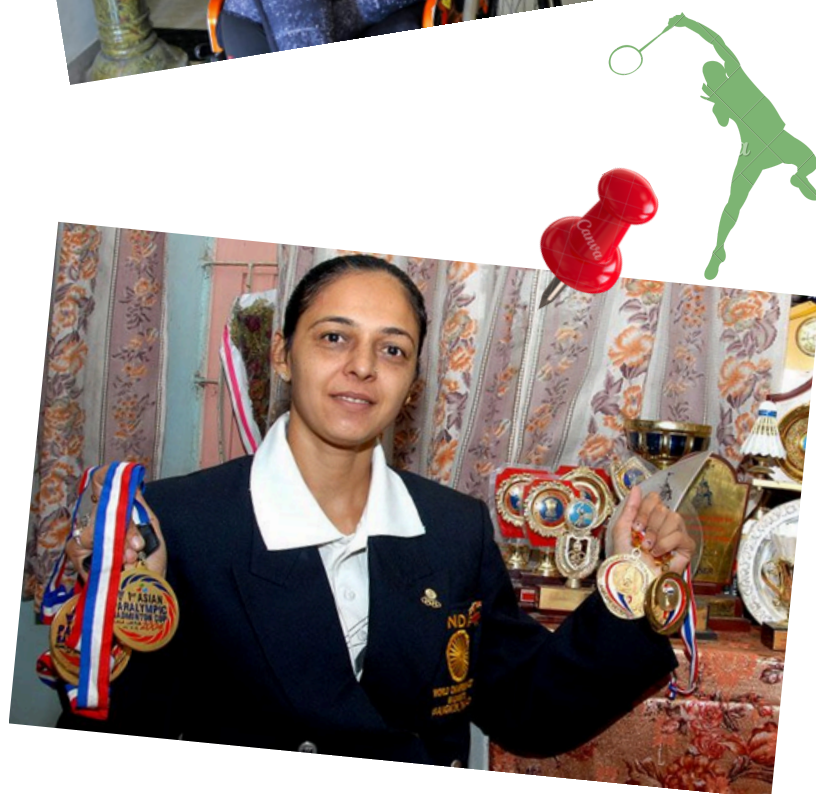
Beyond Shooting: India's Paralympic Heroes

Outside shooting, Indian women have excelled across a variety of Paralympic disciplines. *Deepa Malik*, India's first-ever female Paralympic medallist, won a silver in shot put at the Rio 2016 Games in the F53 category. Her achievement marked a turning point for para-sports in India, inspiring future generations of female athletes.

In para-badminton, *Parul Parmar*, a multiple-time world champion, continues to dominate the court. As one of India's top para-badminton athletes, Parmar has consistently won international tournaments, including gold at the Asian Para Games.

Ekta Bhyan, an Indian para-athlete, has also made waves in the F51 club throw and discus throw. She won gold at the 2018 Asian Para Games, and her journey has been one of overcoming severe injury and inspiring countless others.

Simran Sharma is a visually-impaired para-athlete who has represented India on the global stage. She won a bronze medal in the Women's 200m T12 event at the 2024 Summer Paralympics in Paris as well as countless achievements further solidifying her reputation as one of India's top para-athletes.



The Growing Support for Para-Athletes

India's push for inclusivity in sports has seen significant advancements in recent years. The government's Target Olympic Podium Scheme (TOPS), along with initiatives like Khelo India, have provided much-needed financial support and training infrastructure for para-athletes. The success of programs aimed at identifying and nurturing talent at the grassroots level is now evident in the growing number of Paralympic participants and medal winners.

Furthermore, the Paralympic Committee of India (PCI) has played a crucial role in ensuring that athletes with disabilities have access to international-standard coaching, facilities, and adaptive equipment. This has opened doors for women athletes who would have otherwise lacked the opportunities to showcase their talents. The stories of these remarkable female athletes are paving the way for future generations.

A Future Full of Promise

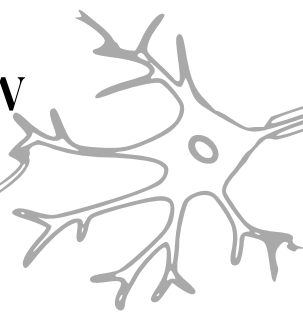
From shooters like Avani Lekhara to pioneers like Deepa Malik, Indian women in para-sports are leading a movement of empowerment and excellence. Internationally, the success of athletes like Veronika Vadovičová and Natascha Hiltrop highlights the global momentum toward inclusion and achievement.

With the continued support of national and international organizations, advancements in sports science, and the inspiring leadership of these athletes, the future for female Paralympic athletes looks brighter than ever. Their victories are not just personal triumphs—they symbolize the progress of a more inclusive sporting world, where every athlete has a chance to shine.

From shooting ranges to swimming pools, Indian and global female Paralympic athletes are proving that resilience, dedication, and the will to succeed can overcome any challenge. Their achievements are inspiring a new generation to dream big and aim even higher.



Unlocking Peak Performance: How Applied Neuroscience Can Help Para Shooters Up Their Game



This article aims to explore how becoming "neuro informed" can benefit para shooters and provide practical strategies from applied neuroscience to further optimize their skills in competitive shooting. It also suggests how para athletes can have an improved Quality of Life.

I. What Does It Mean to Be "Neuro Informed" in Shooting?

Being *neuro informed* means understanding how your brain works in specific situations and leveraging this knowledge to improve performance. For para shooters, this involves learning how different brain processes — from focus and decision-making to emotional regulation — directly impact accuracy, reaction time, and overall performance.

The Brain's Role in Precision

In shooting, your brain's ability to process visual information, focus under pressure, and maintain hand-eye coordination is crucial. When aiming at a target, it's not just your muscles at work — the brain plays a leading role. Becoming neuro informed helps shooters understand:

- *How visual processing happens:* The brain's occipital lobe processes what the eyes see, while the parietal lobe and cerebellum work together to control fine motor skills and precision.
- *Focus and concentration:* The prefrontal cortex is responsible for sustained attention and focus, vital for holding your aim steady and resisting distractions.

By learning more about these processes, para shooters can start to train their brain just as much as their body.



Research has shown that elite shooters can decrease their heart rate by up to 20 beats per minute when preparing to take a shot? This physiological response is linked to their ability to regulate emotions and maintain focus, demonstrating the brain's remarkable capacity to influence physical performance in high-pressure situations.

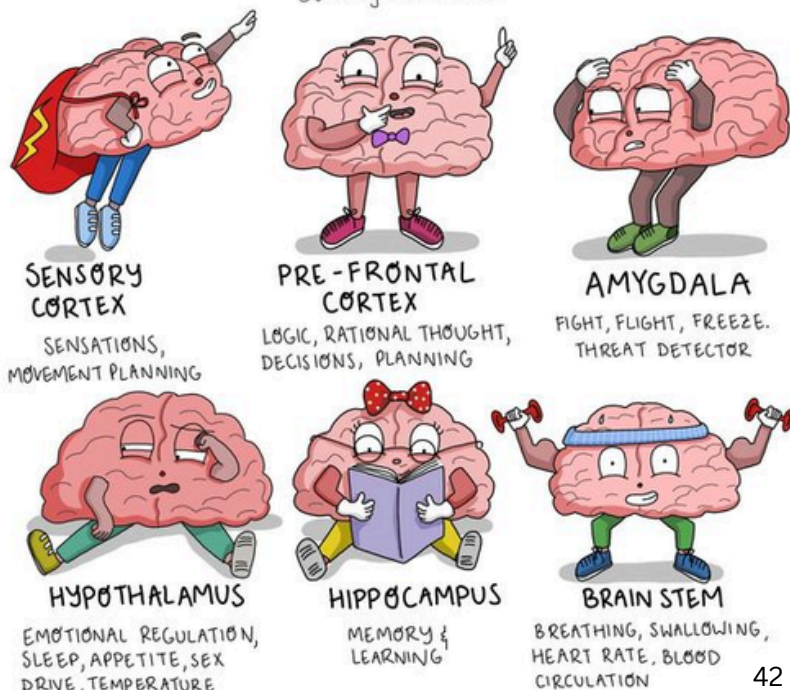
Enhancing Emotional Control

Competitive shooting can be highly stressful, and pressure to perform can trigger anxiety or overexcitement, which affects accuracy. Understanding the brain's emotional response can give shooters an edge.

- *Amygdala regulation:* The amygdala controls emotional reactions, especially fear and anxiety. Learning to manage this through techniques like mindfulness or neurofeedback can help para shooters stay calm under pressure and prevent stress from sabotaging their performance.

INSIDE YOUR BRAIN

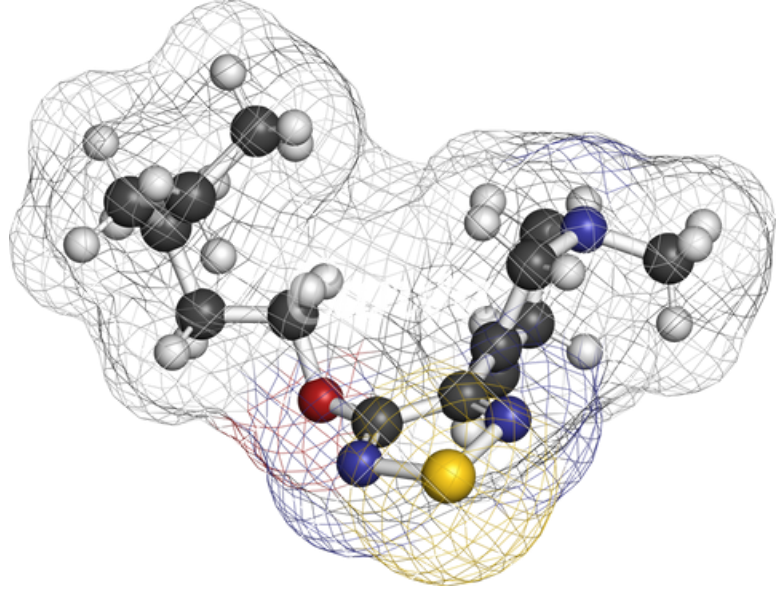
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Acetylcholine: The Focus Enhancer

Acetylcholine is a crucial neurotransmitter in the brain that plays a significant role in attention, learning, and memory. For para shooters, acetylcholine is particularly relevant because of its role in enhancing focus and sustaining attention during competition. When acetylcholine levels are elevated, the brain enters a heightened state of readiness, allowing shooters to maintain intense focus on their target while filtering out distractions.

In shooting, precision is everything, and acetylcholine helps shooters zero in on the fine motor control required to execute a perfect shot. Techniques like deep focus exercises, mindful breathing, and cognitive training have been shown to influence the release of acetylcholine, helping shooters optimize their mental sharpness in high-pressure situations. Understanding how to activate and sustain acetylcholine production can be a game-changer for shooters looking to maintain peak concentration throughout a long competition.

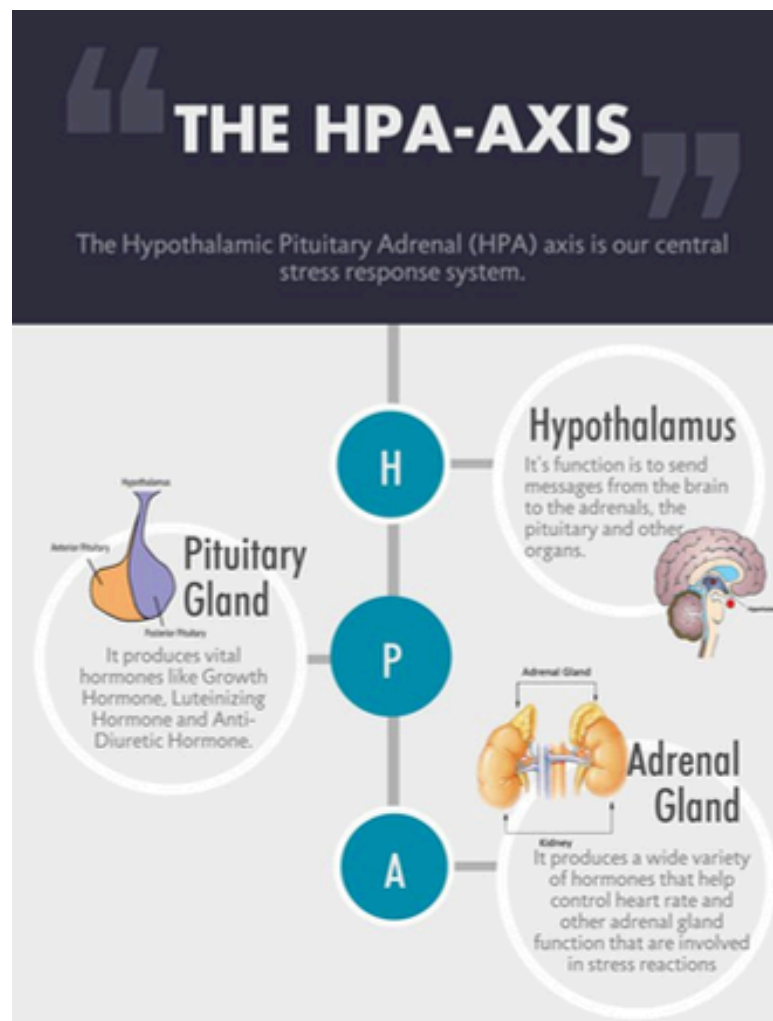


Additionally, studies suggest that physical exercise and engaging in activities that promote brain health, such as puzzle-solving or learning new skills, can also enhance acetylcholine levels. By incorporating these practices into their training regimen, para shooters can further boost their cognitive functions, improving not only their focus but also their overall shooting performance during competitions.

The HPA Axis: Managing Stress and Resilience

The *Hypothalamic-Pituitary-Adrenal (HPA) axis* is the body's primary stress-response system, regulating how we react to stressors. For para shooters, the HPA axis plays a key role in managing both physical and emotional stress during competitions. When a shooter feels pressure, the hypothalamus triggers a cascade of hormones, including cortisol, which can either enhance or impair performance depending on how well stress is managed.

In small doses, stress can increase alertness and sharpen focus — a phenomenon known as "eustress." However, chronic activation of the HPA axis, resulting in prolonged cortisol release, can lead to anxiety, muscle tension, and reduced accuracy. Understanding the role of the HPA axis allows shooters to adopt strategies for stress regulation, such as mindfulness, biofeedback, and controlled breathing. By keeping the HPA axis in check, para shooters can perform under pressure without succumbing to the negative effects of stress overload.



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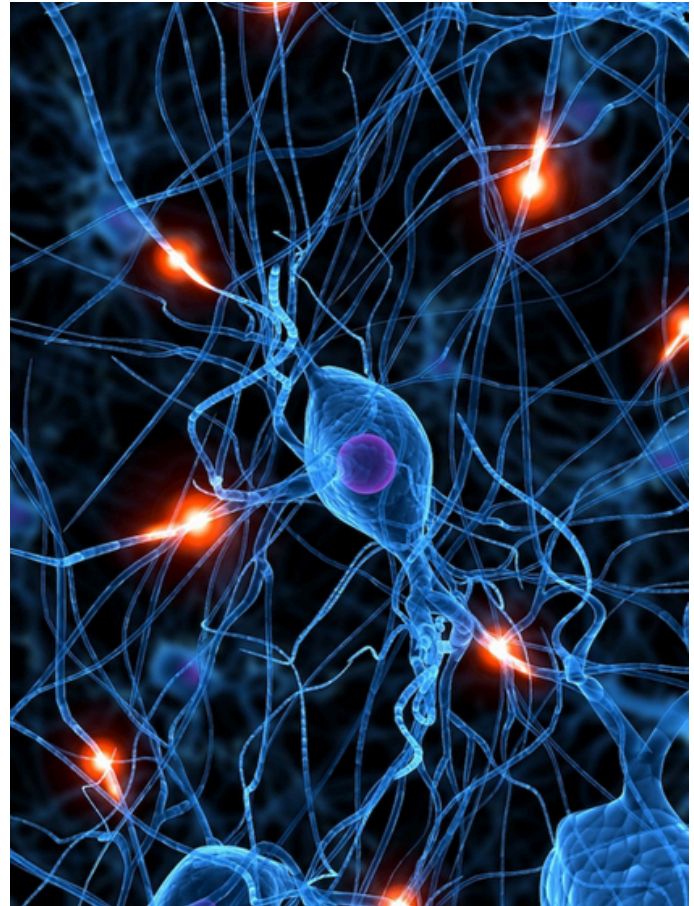
II. Practical Neuroscience-Based Strategies for Shooting Success

Now that we've covered the basics of becoming neuro informed, let's dive into practical techniques from applied neuroscience that can help para shooters reach new heights in their performance.

Neuroplasticity: The Brain's Ability to Adapt

Neuroplasticity refers to the brain's ability to reorganize and form new connections based on experiences and training. Even if a shooter has adapted to physical limitations, neuroplasticity allows further refinement of their shooting skills through targeted mental and physical practice.

- *Visualization (Mental Imagery):* By visualizing each step of the shooting process — from positioning to aiming and firing — shooters activate the same neural circuits used during actual practice. This technique strengthens motor pathways and improves performance without physical movement. Visualizing success also builds confidence and reinforces positive brain patterns.
- *Cross-Training for Mental Flexibility:* Engaging in activities like meditation or brain-training games strengthens neural flexibility. The more adaptable the brain, the better it performs under varied competitive conditions.



pursuit.unimelb.edu.au

The Power of Retrieval Practice

Retrieval practice is a technique where you actively recall information or perform a skill to strengthen your memory and learning. In shooting, this could mean mentally recalling the perfect shot process or reviewing shooting strategies during downtime.

- *How it Works:* Each time you recall or practice a skill, the neural pathways associated with that task are reinforced, making it easier to perform the skill under pressure.
- *Application:* After shooting practice, spend a few minutes mentally reviewing your performance and visualizing key movements. This strengthens the brain's ability to recall and execute the skills during competition.

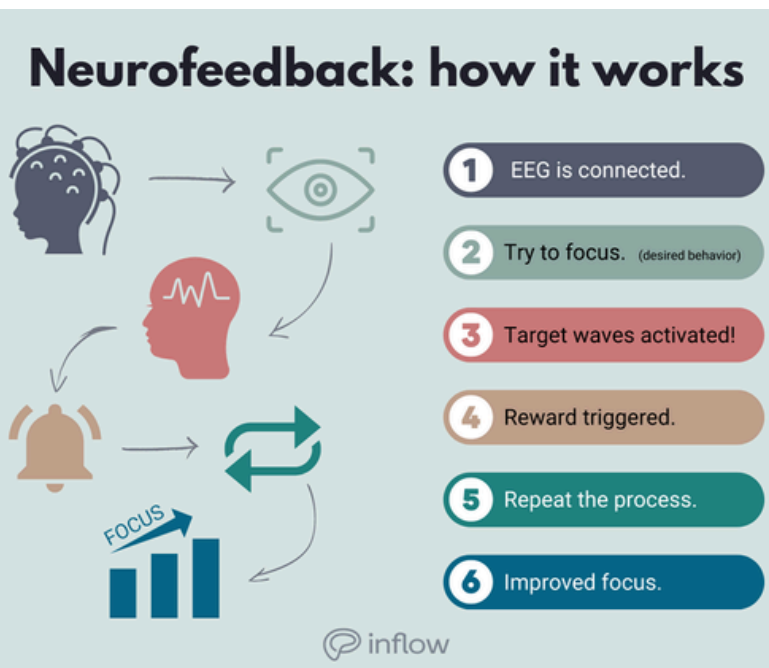


Did you know that your brain can't tell the difference between actually shooting and just imagining it? When shooters practice visualization, the same neural circuits light up as if they're physically firing the shot — so even your brain thinks you're always on target!

Applying Interleaving for Skill Mastery

Interleaving refers to mixing up practice sessions by alternating between different skills, rather than focusing on just one. For para shooters, this might involve practicing different shooting distances, positions, or target types in one session.

- *Why it Works:* Interleaving challenges the brain to adapt and strengthens neural flexibility, which prepares you for unexpected conditions in real competitions.
- *Application:* Design practice sessions where you alternate between tasks like rapid target transitions, long-distance shots, and rapid-fire sequences. This forces the brain to adapt to changing conditions, which translates to better performance in dynamic environments.

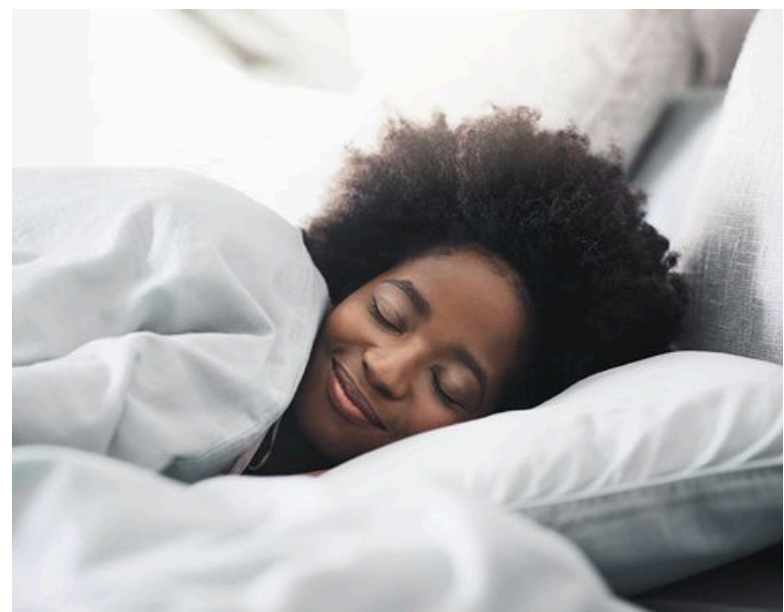


www.getinflow.io

Neurofeedback for Better Focus

Neurofeedback is a technique that uses real-time monitoring of brain activity to help athletes regulate their mental state. For para shooters, it can be a game-changer for improving concentration and staying calm during competitions.

- *How it Works:* By wearing sensors that monitor brainwaves, shooters can learn to regulate their mental state for optimal focus. For example, they can practice calming techniques when brain activity shows heightened anxiety.
- *Application:* Many neurofeedback devices are available for individual use or in collaboration with sports psychologists. Using neurofeedback before a competition can help para shooters enter a state of relaxed concentration, improving their accuracy.



heart.org

Leveraging Sleep and Recovery

The brain needs rest to consolidate memories and skills. Sleep plays a crucial role in transferring new knowledge and skills from short-term to long-term memory, a process known as long-term potentiation (LTP).

- *Why it Matters:* Without proper sleep, the brain doesn't fully integrate the new motor skills or strategies learned during practice.
- *Application:* Prioritize 7-9 hours of sleep after training sessions to give the brain time to solidify the skills practiced. Consider napping after practice as studies show short naps also aid in memory consolidation.

III. How Para Shooters Can Apply This Knowledge

Personalize Training with Neuroscience

Every shooter has unique strengths and challenges. Applying neuroscience-based techniques like visualization, interleaving, and neurofeedback allows each para shooter to customize their practice routines for their brain's optimal performance.

Make Mindfulness Part of Your Routine

Since emotional regulation plays a crucial role in competitive shooting, developing mindfulness and relaxation techniques will help you stay composed and focused. Consider adding daily mindfulness exercises to your routine — even five minutes can make a difference.

Train Your Brain as Much as Your Body

Applied neuroscience teaches us that the brain is just as critical as physical ability in mastering skills. Para shooters can use techniques like retrieval practice, mental imagery, and neuroplasticity exercises to train their brains and continually improve their shooting skills.



IV. Improving ‘Quality of Life’ Using Applied Neuroscience

While peak performance is crucial for para-athletes, their quality of life—how happy, healthy, and fulfilled they feel—is just as important. Applied neuroscience can help improve their overall well-being in several ways, from managing pain to enhancing emotional health and promoting social connections.

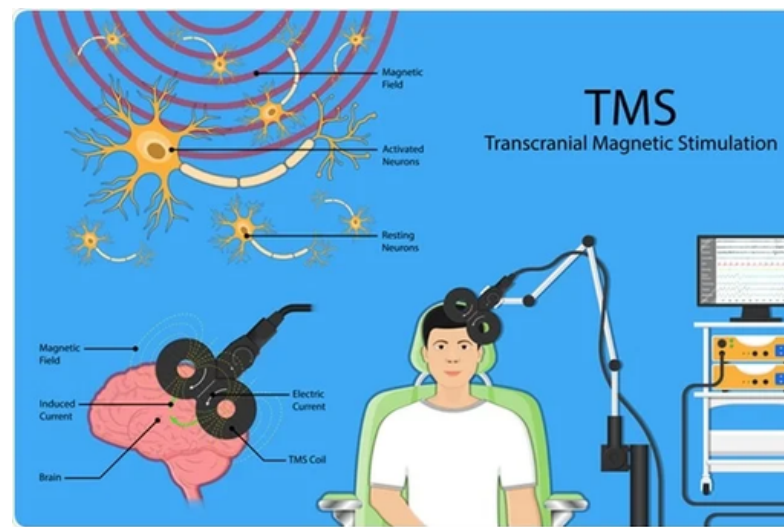
Managing Pain with Brain Science

Many para-athletes experience chronic pain due to their injuries or conditions. Neuroscience offers innovative ways to help manage this pain without relying solely on medication.

Simple Techniques:

- **Neurofeedback:** This method teaches athletes how to control their brainwave activity to reduce pain perception. It's like training your brain to ignore pain signals, helping athletes feel more comfortable and less stressed.
- **Transcranial Magnetic Stimulation (TMS):** This technique uses magnetic fields to stimulate certain parts of the brain, reducing pain and improving mood. TMS can be a helpful addition to traditional pain management methods, especially for those who don't respond well to other treatments.

Your brain has “mirror neurons” that help you feel what others are feeling? It's like your brain's way of saying, “I get you!” That's why training with teammates or sharing experiences can make you feel more connected — your brain is literally wired for empathy!



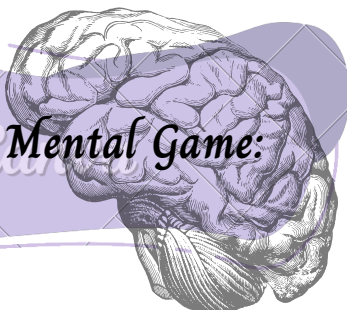
Transcranial magnetic stimulation TMS. Image Credit: Rumruay / Shutterstock R By

Boosting Emotional Well-Being

Maintaining a positive emotional state is vital for para-athletes, who often face unique psychological challenges. Neuroscience-based strategies like mindfulness and cognitive behavioural therapy (CBT) can help.

- **Mindfulness Practices:** Mindfulness helps athletes focus on the present, reducing anxiety and improving concentration. Studies show it can decrease the activity in the brain's "fear centre" and increase the ability to think clearly and make decisions, leading to better emotional balance.
- **CBT Techniques:** CBT helps athletes change negative thoughts into positive ones, which can boost self-esteem and reduce feelings of frustration. For example, an athlete might replace a thought like "I'll never be as good as others" with "I have unique strengths that make me competitive."

Boost Your Mental Game:



Did you know that just 10 minutes of mindfulness a day can reduce stress and sharpen focus? It's like giving your brain a quick workout — and the best part? You don't even break a sweat! Whether managing pain or boosting your mood, these simple neuroscience techniques can make all the difference for para-athletes striving for balance on and off the range.

Para-athletes often face challenges related to social inclusion. Neuroscience can help improve their social skills and connectedness.

- *Using Virtual Reality (VR):* VR can create virtual environments where para-athletes can practice social skills and interact with others in a safe and controlled space. This can help them build confidence and feel more connected to their peers.
- *Training Communication Skills:* Neuroscience shows that understanding others' emotions and intentions (through "mirror neurons") is crucial for good communication. Coaches can use this knowledge to help para-athletes improve their non-verbal communication skills, making it easier for them to connect with teammates and coaches.

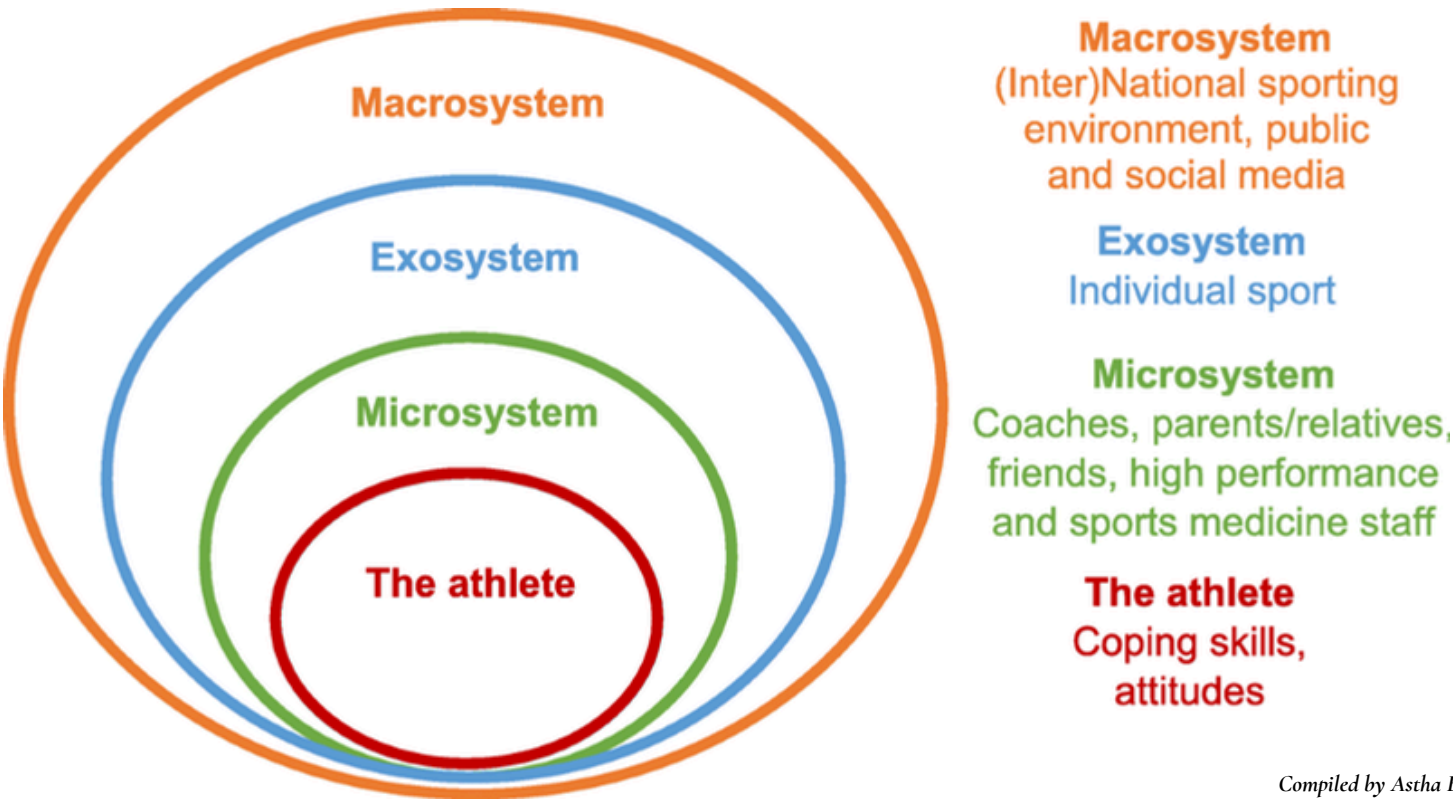
Building a Supportive Environment

Para-athletes benefit greatly from being part of a supportive community. Coaches, trainers, and teammates who understand the brain's role in motivation and behaviour can provide better support, helping athletes stay resilient and motivated. Creating a positive, growth-oriented environment encourages para-athletes to embrace challenges, learn from setbacks, and celebrate their progress.

Good sleep is essential for everyone, but especially for athletes. Para-athletes may have trouble sleeping due to pain or stress, which can affect their performance and mood. Neuroscience offers solutions like cognitive behavioural therapy for insomnia (CBT-I) and neurostimulation techniques to help improve sleep quality, leading to better recovery, focus, and overall well-being.

Keeping the Brain Active and Engaged

Staying mentally active is vital for maintaining cognitive health. Para-athletes can engage in activities like puzzles, memory games, and problem-solving exercises to keep their brains sharp. Participating in sports that require quick thinking and coordination can also help keep their minds agile and adaptable.



Compiled by Astha Bisht

Conclusion: Leverage Applied Neuroscience For Peak Performance And Quality of Life

Para shooters who have already mastered their sport can take their skills to the next level by becoming neuro informed. By understanding how the brain processes information, handles stress, and consolidates skills, shooters can harness the power of applied neuroscience to further improve their precision, mental toughness, and performance.

Applied neuroscience offers many ways to improve both the performance and quality of life for para-athletes. By understanding how the brain works, they can manage pain, boost emotional health, improve social skills, and stay mentally active. As our knowledge of the brain continues to grow, so does the potential for helping para-athletes lead happier, healthier, and more fulfilling lives—both on and off the field.

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This article, part of a series on “How Applied Neuroscience Can Help Para Shooters Up Their Game” in The Shooter’s Scope , is authored by Lt Col. Sumant Khare, a leading expert in applied neuroscience with over 40 years of experience. He is the Principal Consultant at Nvision Learning & Development.

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Professional Credentials

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- Leadership & Managerial Development.
- Building Teams.
- Behavioural Skills.
- Change Management.
- NLP.
- Emotional Intelligence (EI).
- Trained over 50,000 working professionals and Coached over 500 corporate leaders and managers.

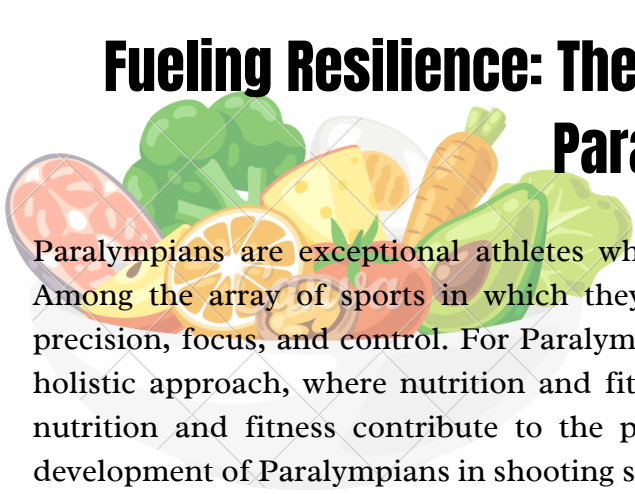


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Fueling Resilience: The Vital Role of Nutrition and Fitness in Paralympic Shooting



Paralympians are exceptional athletes who redefine the boundaries of physical and mental endurance. Among the array of sports in which they compete, shooting stands out for its unique combination of precision, focus, and control. For Paralympians, achieving peak performance in sports shooting requires a holistic approach, where nutrition and fitness play integral roles. This article delves into how optimized nutrition and fitness contribute to the physical and mental strength necessary for the comprehensive development of Paralympians in shooting sports.

Physical Strength: A Key Component in Sports Shooting:

Though sports shooting may appear primarily skill-based, physical fitness is crucial for sustaining performance over prolonged periods. Paralympians must maintain core stability, upper body strength, and postural control to ensure they can hold and aim their weapons with precision.

A study by the *British Journal of Sports Medicine* (2020) found that athletes who incorporated targeted strength training routines, including exercises for the shoulders, back, and core, showed a 15% increase in shooting stability and a 20% reduction in fatigue over six months. The study emphasized that muscular endurance reduces the risk of tremors, which can significantly impact shooting accuracy, particularly in Paralympians who may have additional muscle control challenges.

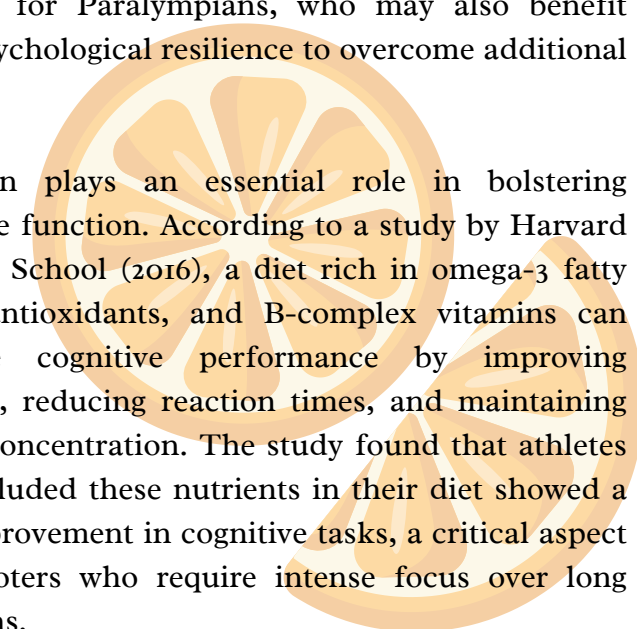
Furthermore, cardiovascular fitness is essential. According to a report by the *World Health Organization (WHO)* (2018), regular cardiovascular training improves blood circulation and oxygen uptake, which can enhance concentration and reduce reaction times by up to 20%. For Paralympians, this is critical, as sustained focus over long periods is a hallmark of success in shooting sports.

Read the report here: <https://www.who.int/>

Mental Strength: The Heart of Competitive Sports Shooting:

In addition to physical prowess, sports shooting demands exceptional mental resilience. Paralympians often face unique challenges, and maintaining focus in high-pressure situations is critical.

Research from the *Journal of Sports Psychology* (2019) indicates that athletes practising mental training techniques—such as visualization, mindfulness, and controlled breathing—experience a 30% improvement in focus and a 25% reduction in performance anxiety. These findings are particularly relevant for Paralympians, who may also benefit from psychological resilience to overcome additional barriers.



Nutrition plays an essential role in bolstering cognitive function. According to a study by Harvard Medical School (2016), a diet rich in omega-3 fatty acids, antioxidants, and B-complex vitamins can enhance cognitive performance by improving memory, reducing reaction times, and maintaining steady concentration. The study found that athletes who included these nutrients in their diet showed a 12% improvement in cognitive tasks, a critical aspect for shooters who require intense focus over long durations.

Read the report here: <https://www.health.harvard.edu/>

The Critical Role of Nutrition in Performance Optimization:

Nutrition forms the cornerstone of any athlete's performance, and for Paralympians, it becomes even more crucial to tailor dietary intake to meet specific needs and overcome challenges. The International Journal of Sports Nutrition and Exercise Metabolism (2021) reported that athletes with personalized nutritional plans saw a 25% improvement in overall performance, highlighting the impact of a well-balanced diet on athletic outcomes.

For Paralympic shooters, steady energy levels and muscle function are vital, requiring a diet that balances lean proteins, complex carbohydrates, healthy fats, and essential micronutrients. A study published in The Journal of Applied Physiology (2017) found that consuming slow-releasing carbohydrates, like whole grains and vegetables, helped maintain stable blood glucose levels, enhancing mental focus and endurance by 15-20%.

Furthermore, proper hydration is critical. According to research by the American College of Sports Medicine (2019), even mild dehydration can impair cognitive function by 14% and reduce physical performance by 7%. For Paralympians, maintaining hydration is essential not only for physical endurance but also for sustaining mental acuity during high-stakes competitions.

Read the report here: <https://www.acsm.org/>

Customized Nutrition Plans for Paralympians:

Each Paralympian has unique nutritional requirements, shaped by their sport, level of activity, and specific disabilities. A personalized nutrition plan developed by a sports nutritionist can address these needs, factoring in body composition, metabolism, and the type of impairment.

A 2020 study by Sports Medicine Australia found that Paralympians with spinal cord injuries require 20-30% more protein than able-bodied athletes to preserve lean muscle mass and support recovery.



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Additionally, supplements like vitamin D, calcium, and magnesium are often necessary to support bone health, particularly for those with limited mobility. Omega-3 fatty acids have been shown to reduce inflammation and improve cognitive function by 10%, according to research from Johns Hopkins University (2018).

Read the report here: <https://www.hopkinsmedicine.org/>
<https://sma.org.au/>

Fitness Training: Adapting to Unique Needs:

For Paralympians, fitness training must be adaptable to accommodate specific physical challenges while enhancing overall strength, endurance, and flexibility. Adaptive training methods focus on strengthening muscles actively engaged in shooting. Resistance training, using bands, free weights, or body-weight exercises, promotes stability and coordination, which are key for maintaining a steady shooting position.

A study by the National Center on Health, Physical Activity, and Disability (NCHPAD) (2021) found that adaptive training techniques can increase muscle strength by 20% and endurance by 30% in just 12 weeks. This is crucial for maintaining the strength needed to hold and aim a rifle accurately over prolonged periods.

Read the report here: <https://www.nchpad.org/>

Conclusion:

The comprehensive development of Paralympians in sports shooting demands a balanced integration of nutrition, physical fitness, and mental fortitude. Optimal nutrition, tailored training programs, and psychological conditioning are fundamental to overcoming unique challenges and achieving peak performance. As noted by a survey from the Paralympic Training Institute (2020), 87% of elite Paralympians attribute their success to a well-rounded approach combining these elements. Understanding the importance of nutrition and fitness in their development is key to fostering continued success for Paralympic shooters on the global stage.

Read the survey here: <https://www.paralympic.org/paris-2024>.



EMPOWERING LIVES WITH NUTRITION & FITNESS COACHING

Smita, a devoted nutrition and fitness coach, is committed to assisting individuals in reaching their health and wellness objectives. She develops customized programs tailored to each client's specific requirements. Smita advocates for a comprehensive health approach, highlighting the significance of a well-rounded diet, consistent exercise, and a positive outlook.

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