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ARCHIVES 2026

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WHO WE ARE:

Founded in 2020 JudoTraining website aims to approach the scientific knowledge about judo to all coaches and judo athletes interested in learning more about our sport. We shared the latest articles, researches, and videos about training, nutrition, psychology, technique, or tactic. This website is your best way to be updated in this field and learn constantly.

JUDOTRAINING ARCHIVES

JudoTraining Archives is an official periodical journal of JudoTraining, which published its issue trimestrally basis.
JudoTraining Archives aims to promote existing benefits and problems in judo training and sport sciences by encouraging inquiry into the relationship between theorical and practical studies

For coaches/doctors/scientists:
If you are a coach/doctor/scientist interested in writing for JudoTraining Archives, send an e-mail to felipellanes@gmail.com with your article.

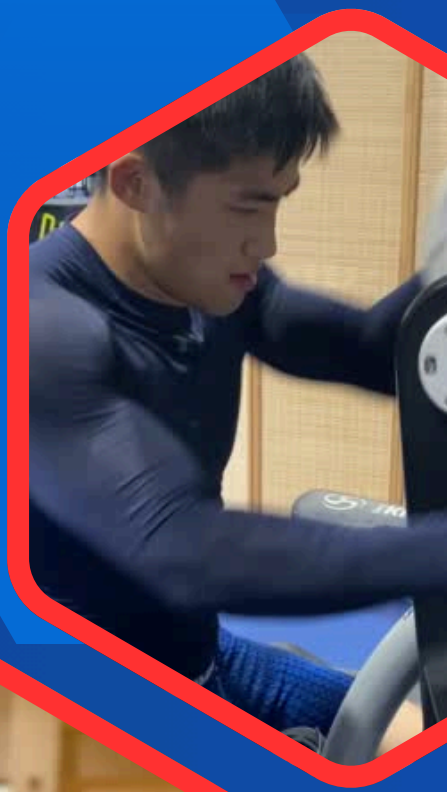
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JUDO TRAINING

APRIL

ARCHIVES 26/04

- *A novel Judo-Specific Ippon Reactive Agility Test*
- *Organize your Randori training and reach your full potential*
- *How Much? How Fast? How Soon?*
- *and much more ....*







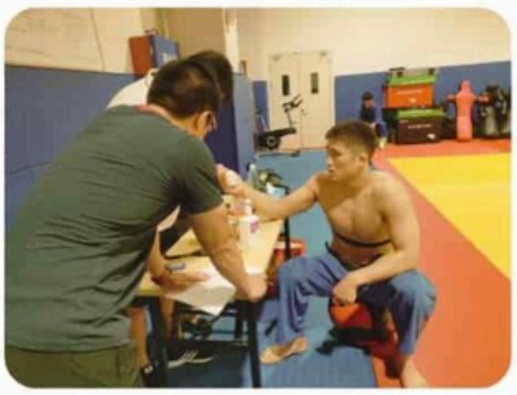
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Organize your Randori training and reach your full potential

Pby Felipe Sánchez Llanes

"R**andori"** is the training modality most closely related to actual judo matches but many times when can appreciate that many judoka's are spending hours practising randori but dont improve a lot.
Among the many training forms used to develop physical fitness and match abilities in judokas, randori (free sparring) has been particularly emphasised by coaches due to its high specificity and ecological validity, as it closely mimics the unpredictable nature of real matches (Franchini & Takito, 2014; Franchini, Brito, et al., 2014).
There are many different variations that we can use in our training sessions but in my opinion coaches usually abuse of classic randori forgetting other options that can help to develop our judokas's level like randori in groups, randori with referee, kakari geiko, moto dachi, etc.
When it comes to programming, every coach has their own way of preparing their plans. In this post I would like to share my own approach about how to organize the different types of randori during the different phases on judo periodization..









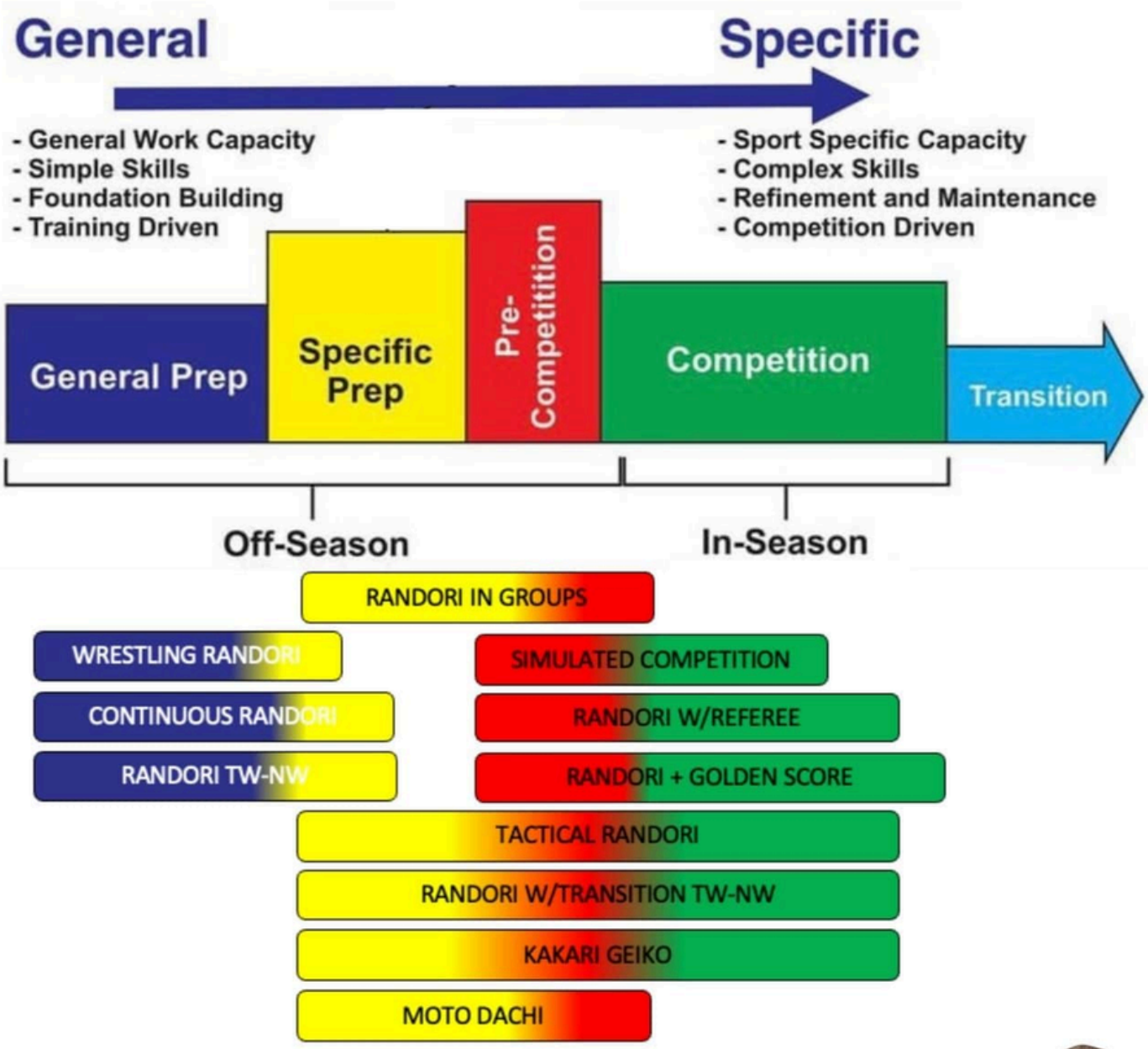
There's no one-size-fits-all approach when it comes to judo periodization. Each method has its merits, and as coaches, our role is to select and blend strategies based on the needs, training age, level or goals of our judo athletes.
Coaches must be flexible and adapt to the changing demands of the competition season. This may require frequent adjustments to the training variables to meet the evolving needs of the athletes.
In the figures below we can see the heart rate monitoring from three different randori sessions done by a high level judo athlete. Monitoring training load during the randori sesions can help coaches to understand the differences between the different types of randori sessions..

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Organize your Randori training and reach your full potential



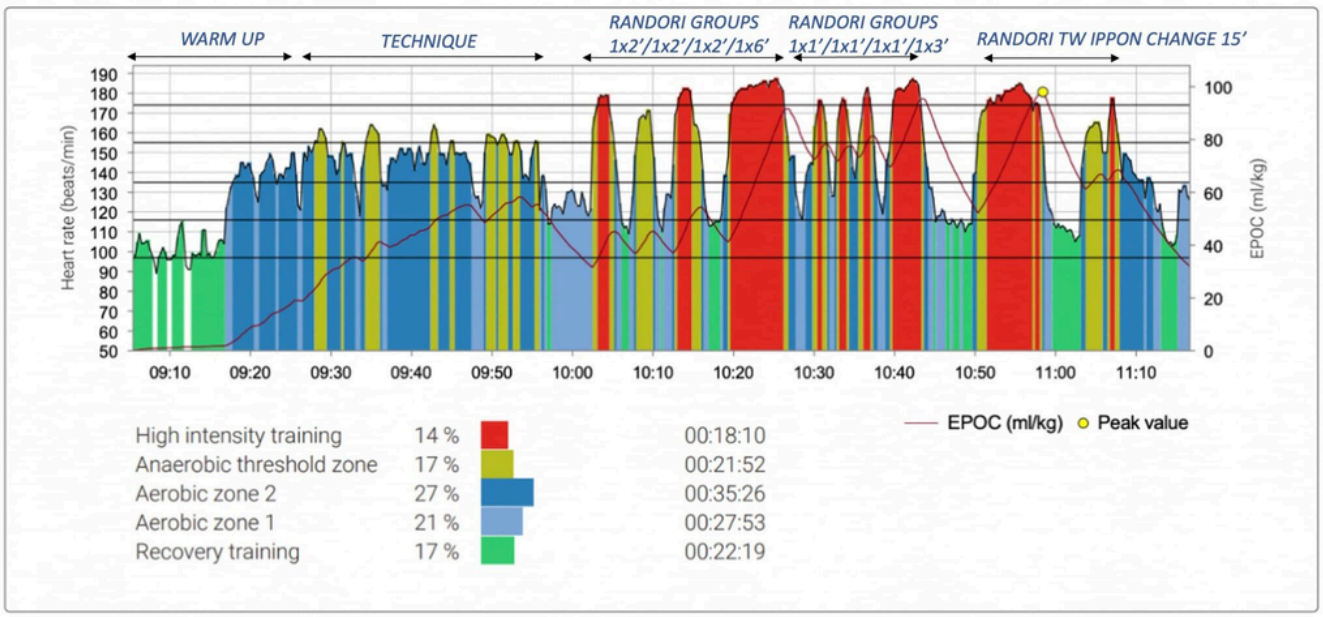


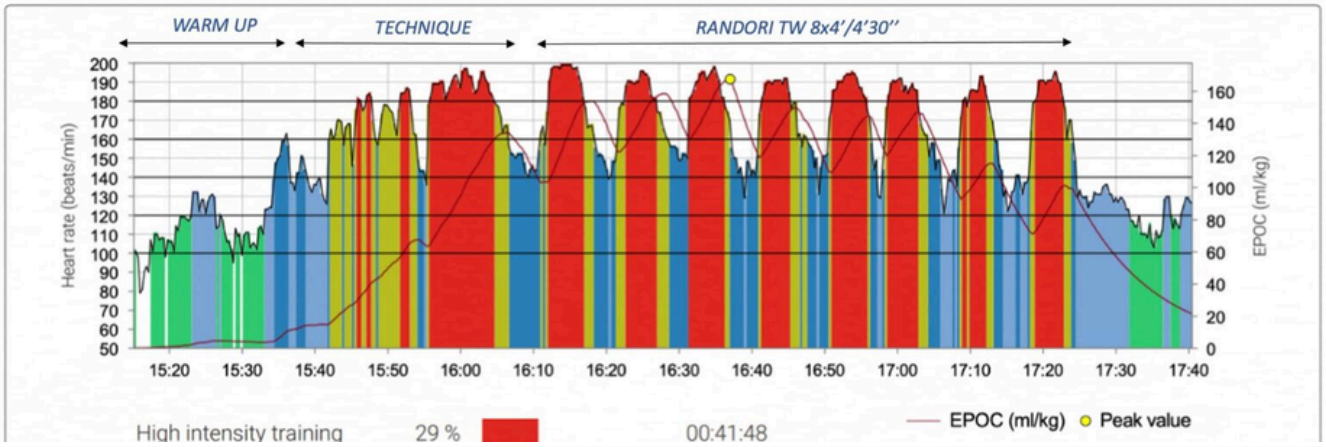
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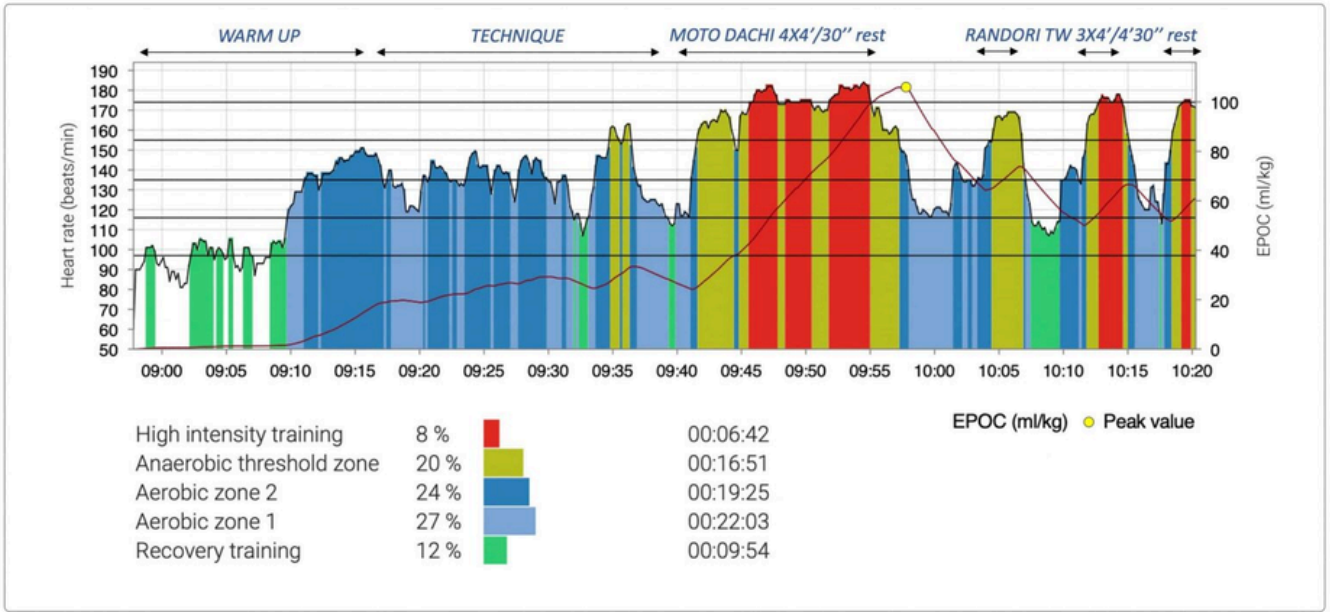


JUDO TRAINING **APRIL** ARCHIVES 26/04

Organize your Randori training and reach your full potential









How Much Do We Know About Foot Pronation in Judokas?



Líška, D., Liptaková, E., Hladiková, C., & Slapšinskaitė-Dackevičienė, A. (2025). How Much Do We Know About Foot Pronation in Judokas?. Journal of the American Podiatric Medical Association, 115(2), Article 22-023, 22-023.

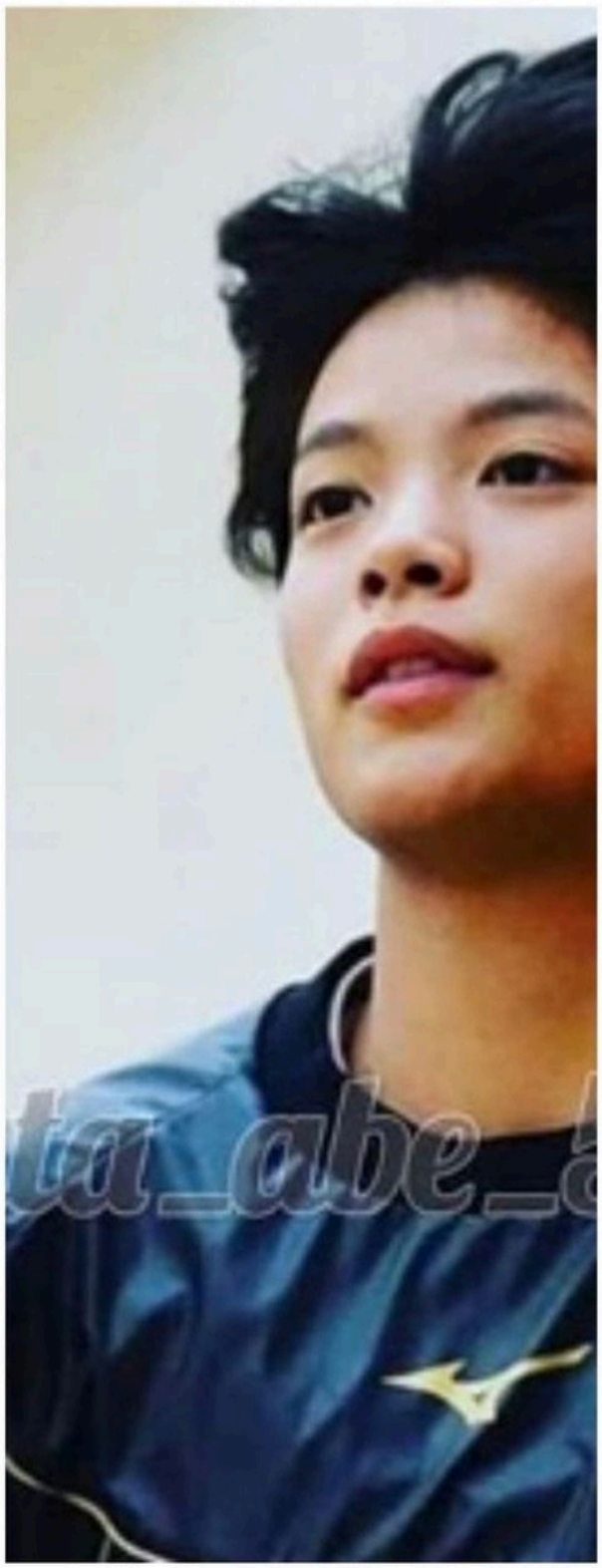
Background: Regular evaluation of foot posture should be performed to determine whether foot-level interventions are necessary because changes in foot posture may contribute to lower-limb overuse injuries. This pilot study aims to test the level of pronation in judokas.
Methods: A total of 61 judokas from Slovakia and the Czech Republic participated in the study, including 36 members of the youth team. Based on sex, the sample was composed of 42 males and 19 females with a mean 6 SD age of 16.82 6 2.41 years. Pronation was measured by the navicular drop test on the foot.
Results: According to the data, the mean 6 SD pronation in males was 0.86 6 0.34 cm on the right foot and 0.89 6 0.34 cm on the left foot. The mean 6 SD navicular drop measure- ment for the right foot was 0.874 6 0.20 cm and 0.878 6 0.23 for the left foot. No correlation between pronation and age (r 5 0.29), height (r 5 0.04), body mass index (r 5 0.02), or years of judo training (r 5 0.22) was found.
Conclusions: This study of judoka pronation values is the first of its kind, providing novel insights into the biomechanics of judo athletes. The findings indicate that sex and age do not significantly influence pronation, suggesting that training and technique may play a more crit- ical role in movement patterns.

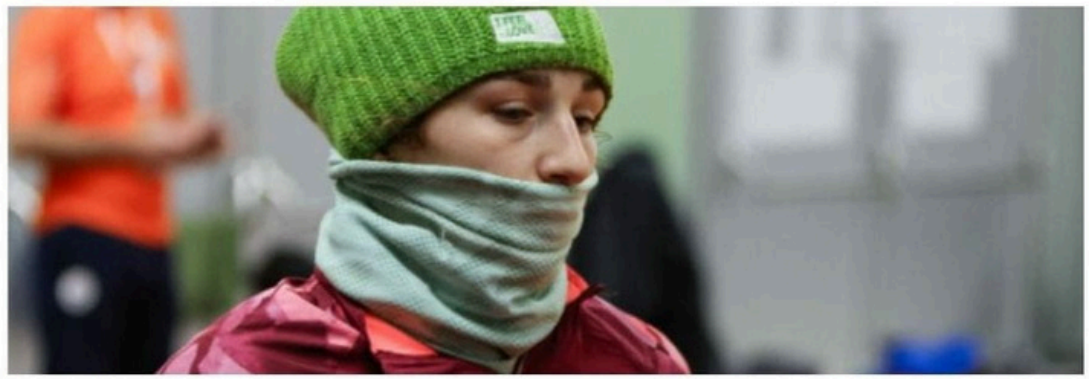
Download the full article HERE.

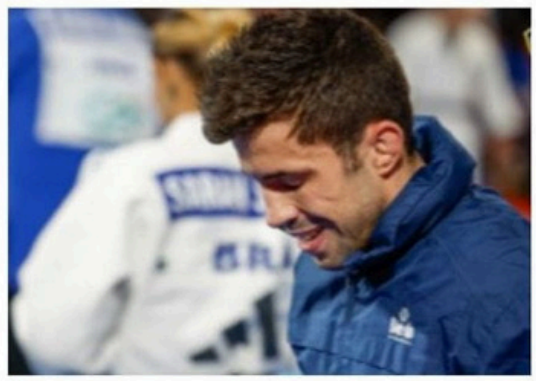
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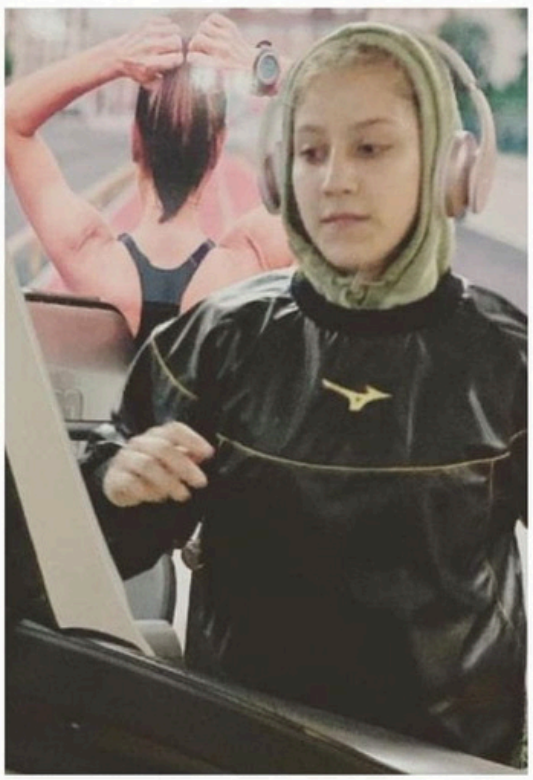
Trends in weight loss strategies and sources of guidance for high-level judo athletes

Rapid Weight Loss













JUDO TRAINING **APRIL** ARCHIVES 26/04

Trends in weight loss strategies and sources of guidance for high-level judo athletes



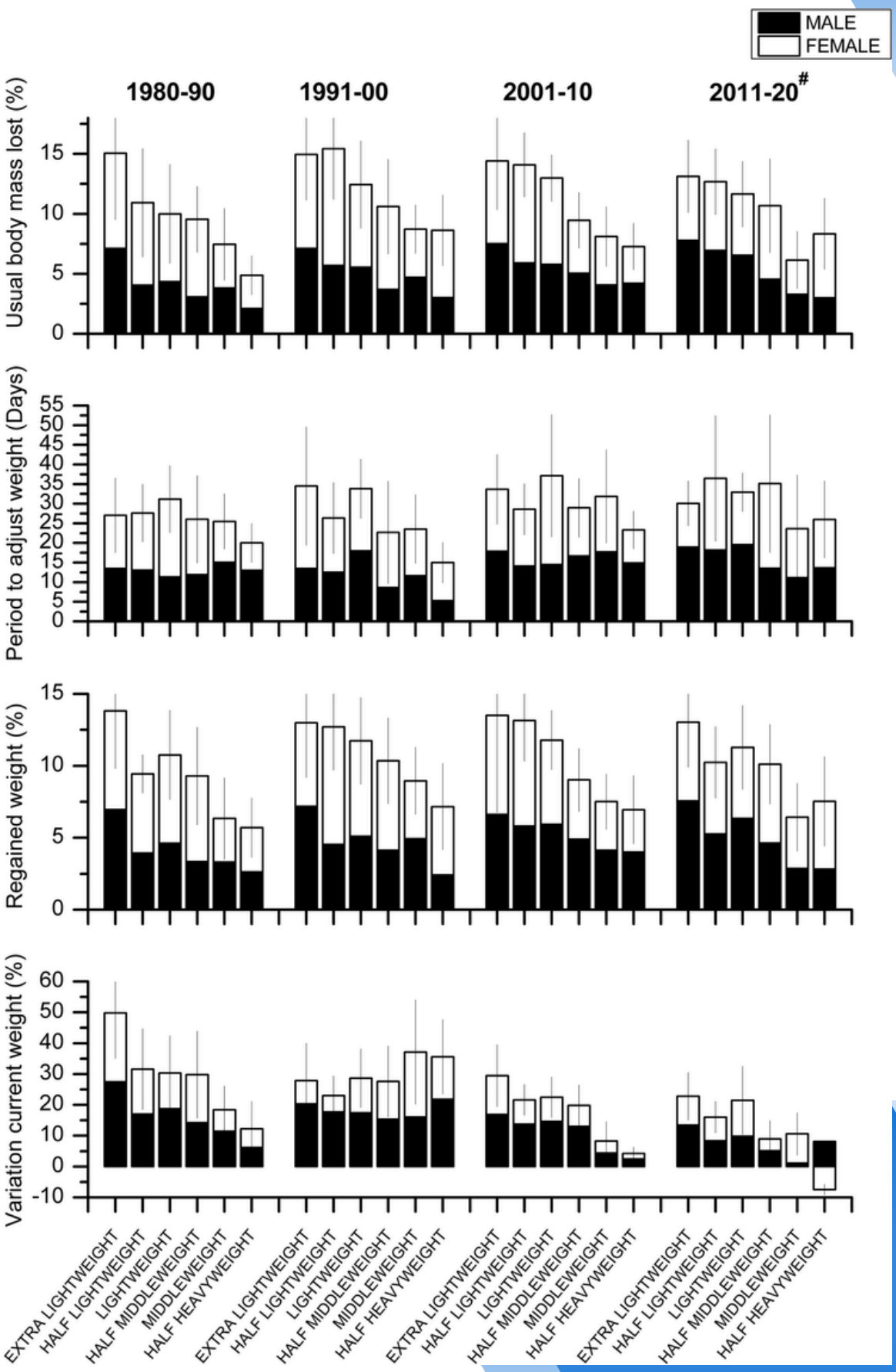
Morales, J., Curto, C., Franchini, E. et al. Trends in weight loss strategies and sources of guidance for high-level judo athletes during the last four decades. Sport Sci Health 22, 148 (2026).

Purpose: This cross-sectional retrospective study aimed to examine trends in rapid weight loss (RWL) practices and sources of guidance among high-level judo athletes over the past four decades, considering sex, competitive period, and weight category.
Methods: A total of 686 former elite judo athletes from Brazil, Italy, Japan, and Spain completed an adapted version of the Rapid Weight Loss Questionnaire (RWLQ). The questionnaire assessed RWL frequency, methods used, and influential figures. Generalized Linear Models and correspondence analyses were applied to evaluate temporal trends and associations.
Results: Approximately 79% of athletes reported always or almost always engaging in RWL. The average pre-competition body mass loss was 5.7%, with higher values observed in lighter weight categories and among female athletes. Post-weigh-in body mass regain closely mirrored pre-competition losses. Over time, the influence of professionals (nutritionists, coaches, and physicians) increased, alongside greater use of structured strategies such as exercise, fasting, and food restriction. The use of extreme methods (vomiting, laxatives, diuretics) remained low and stable.
Conclusions: RWL remains highly prevalent in competitive judo. Although guidance has shifted toward greater professional support and more structured practices, potentially reducing risk, weight cycling behaviors persist. These findings highlight the need for educational and policy interventions to promote safer weight management strategies, particularly during and after athletes' competitive careers.

Download the full article HERE.

Trends in weight loss strategies and sources of guidance for high-level judo athletes





Optimizing performance and injury prevention in combat sports and martial arts



Ojeda-Aravena A, Kons RL, Báez-San Martín E, Dopico-Calvo X. Editorial: Optimizing performance and injury prevention in combat sports and martial arts: methodologies for control and monitoring. Front Sports Act Living. 2026 Mar 27;8:1824699.

The study of martial arts and combat sports has experienced sustained growth and progressive consolidation within the international scientific community dedicated to sport and exercise sciences (1, 2). This development has been driven both by the expansion of these disciplines within the global competitive landscape and by a substantial increase in scientific research examining their physiological, biomechanical, psychological, and technical–tactical dimensions. From a historical perspective, several combat disciplines have been included in the Olympic programme since the earliest editions of the modern Olympic Games. Fencing was part of the Olympic programme from the beginning of the modern Olympic movement, followed by wrestling and boxing, while later decades saw the inclusion of judo and taekwondo. More recently, karate was incorporated as an invited sport in the Tokyo Olympic Games. This competitive expansion has been accompanied by a steady increase in scientific publications indexed in major international databases such as Web of Science, reflecting the consolidation of this domain as a distinct field of research within sport sciences (2).

Continue reading and download the full article HERE.

Do coaches and athletes share the same weight-loss practices and perceptions? Insights from 23 combat sport teams

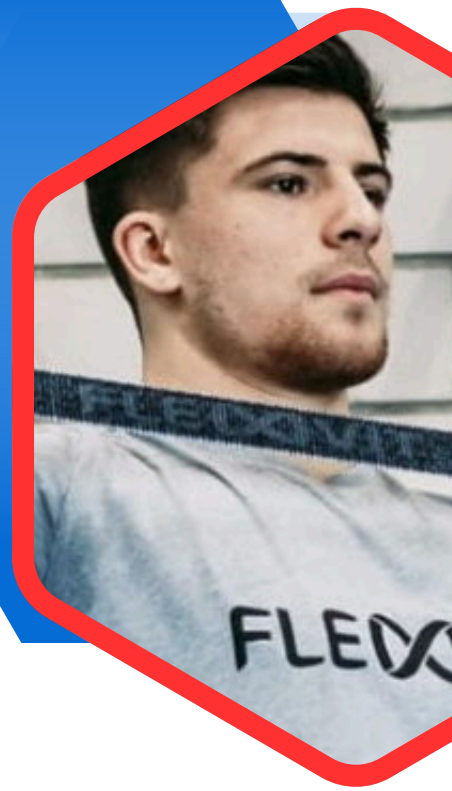


Meng F, Zhang Z, Langan-Evans C, Lakicevic N, Weldon A, Zhong Y, Wu D. Do coaches and athletes share the same weight-loss practices and perceptions? Insights from 23 combat sport teams. Front Nutr. 2026 Mar 18;13:1802696.

Background: The present study aimed to examine whether coaches' weight loss (WL) guidance practices and perceptions are consistent with those of the combat sport (CS) athletes they coach.
Methods: This study employed an observational cross-sectional approach using a survey to ascertain the WL guidance practices and perceptions of CS coaches and WL practices and perceptions of CS athletes and adopted purposeful sampling. In total, 23 coaches and 396 athletes from 23 CS teams who met the inclusion criteria completed the questionnaire. Linear mixed models and generalized estimating equations were used to account for the nested coach-athlete structure.
Results: Significant role differences were observed for habitual WL% and highest WL%, with athletes reporting greater WL magnitudes than coaches recommended. Athletes also reported shorter WL durations than those indicated by coaches. However, after accounting for sex and sport discipline, these role differences were attenuated, indicating that discrepancies were context-dependent rather than uniform across groups. No significant role differences were found for age began WL, perceived coach influence, or perceptions of WL effects on health, performance, and fairness, suggesting substantial perceptual alignment between coaches and athletes. Among 16 WL methods, a significant role difference was identified only for sauna use; this difference was conditioned by sex.
Conclusion: Coaches and athletes demonstrated strong alignment in their perceptions of WL and coach influence. While discrepancies in reported WL practices were observed, these differences appeared to be contextually shaped by sex and sport discipline rather than reflecting a universal athlete-coach divide.
Keywords: coaching; sports nutrition; weight class; weight cutting; weight cycling.

Download the full article HERE.

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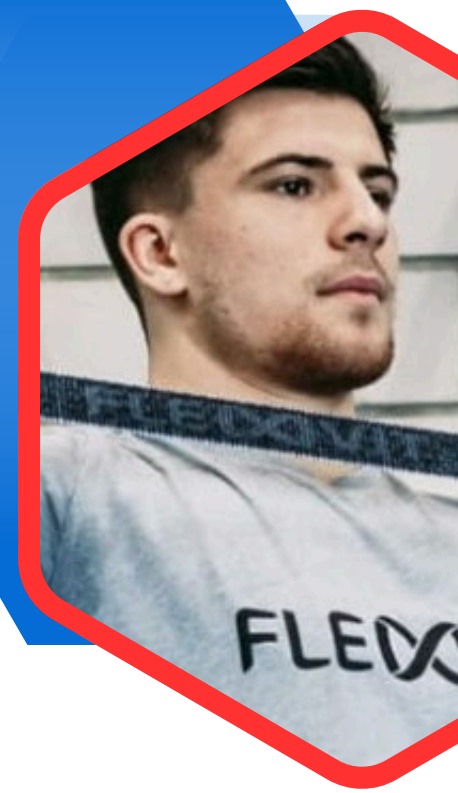
Bands training by Deutscher Judo Bund BJD

Don’t miss these interesting videos with bands for judo athletes.

https://www.youtube.com/watch?v=_PKMf2mv3f0



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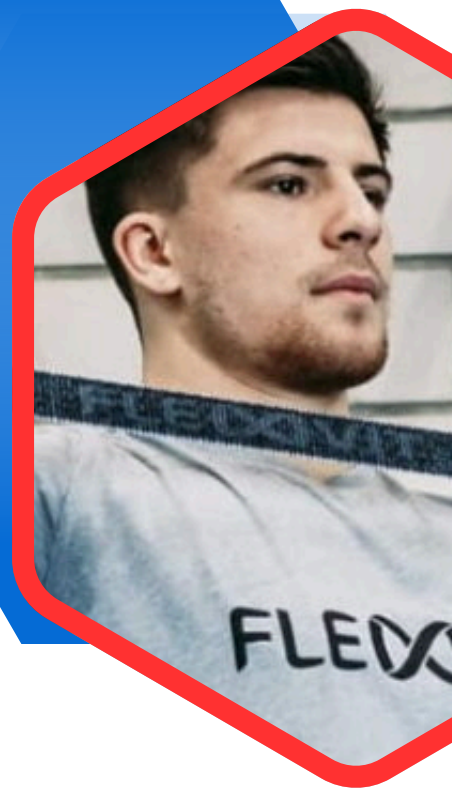
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https://www.youtube.com/watch?v=MtLIsXXjJe0



JUDO TRAINING **APRIL** ARCHIVES 26/04

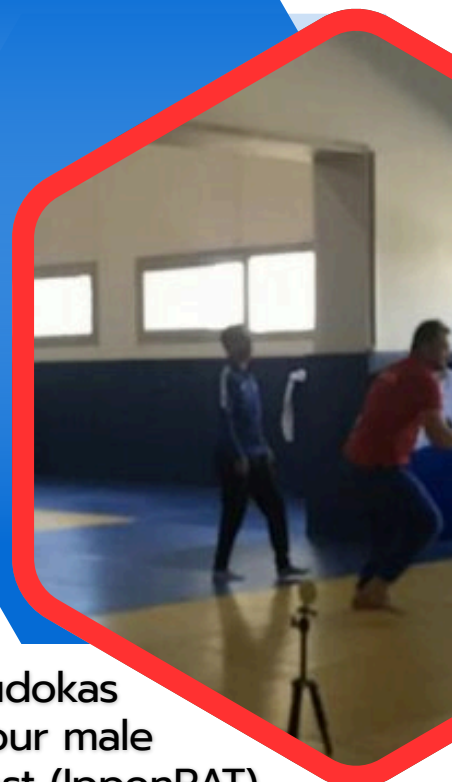


Bands training by Deutscher Judo Bund BJD

Don’t miss these interesting videos with bands for judo athletes.

https://www.youtube.com/watch?v=NxNs86yh5C0





Development of a Novel Judo-Specific Ippon Reactive Agility Test

Ojeda-Aravena A, Kons RL, Báez-San Martín E, Dopico-Calvo X. Editorial: Optimizing performance and injury prevention in combat sports and martial arts: methodologies for control and monitoring. Front Sports Act Living. 2026 Mar 27;8:1824699.

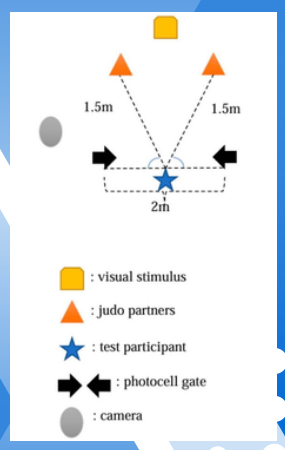
Agility is a critical component of performance in judo, yet no valid and reliable test specifically assesses reactive agility in judokas. The primary aim of this cross-sectional study was to develop and validate a novel reactive agility test for judokas and to examine its test-retest reliability, validity, and discriminative validity. Thirty-four male judokas were recruited from the National Judo Team. The Ippon Reactive Agility Test (IpponRAT) was developed and evaluated in 3 stages, with its feasibility being assessed. The test measured key performance components, including movement time (MT), reaction time (RT), and decision-making time (DT). To assess test-retest reliability, subjects completed the IpponRAT in 2 separate sessions. To assess validity, its correlation with Special Judo Fitness Test (SJFT) was evaluated. Discriminative validity was evaluated by determining whether the test could discriminate judokas based on their competition level. The IpponRAT demonstrated high test-retest reliability for MT (intraclass correlation coefficient [ICC] = 0.82), and good reliability for RT (ICC = 0.71), but poor reliability for DT (ICC = 0.36). The IpponRAT MT showed a high correlation with the SJFT (r = 0.62, p < 0.001), whereas the IpponRAT DT showed a moderate correlation (r = 0.34, p < 0.05). The test discriminated athletes based on their competition level, indicating strong discriminative validity (area under the curve >0.7, p < 0.05). The IpponRAT is a novel judo-specific reactive agility test that is feasible, reliable, and valid. The IpponRAT can be recommended for monitoring reactive agility performance, assessing return-to-sport readiness, and evaluating injury risk in judokas.

Keywords: athletic performance; elite athletes; sport.

Download the full article HERE.









How Much? How Fast? How Soon? Three Simple Concepts for Progressing Training Loads to Minimize Injury Risk and Enhance Performance

Gabbett TJ. How Much? How Fast? How Soon? Three Simple Concepts for Progressing Training Loads to Minim… Enhance Performance. J Orthop Sports Phys Ther. 2020 Oct;50(10):570-573.

Do not miss this article about training load progression and injury prevention by Dr. Tim Ga… "How Much? How Fast? How Soon?" framework reduces injury risk by managing training load th… three concepts:determining current capacity (floor), defining required capacity (ceiling), and managi… the rate of progression. Gradually increasing training loads minimizes injury risks while maximizing athletic performance.

Background: When progressing an athlete from rehabilitation to peak performance, load must exceed load capacity. When gradual, systematic increases in load are applied, load capacity will improve. However, if the applied load greatly exceeds load capacity, then tissue tolerance is exceeded and injury may occur.
Clinical question: It is well established that a balance exists between providing an adequate training stimulus to elicit performance benefits and minimizing the risk of injury. How can practitioners determine how much training is too much? Following injury, how soon can training loads be progressed? How quickly can athletes return to competition?
Key results: When developing rehabilitation or performance programs, 3 concepts are critical: the "floor," the "ceiling," and time. The floor represents the athlete's current capacity, whereas the ceiling represents the capacity needed to perform the specific activities of the sport. A challenge in most sporting environments is the time required to progress from the floor to the ceiling. If athletes' training loads are progressed too rapidly, they will be at increased risk of injury and underperformance.
Clinical application: Rehabilitation practitioners should consider and plan the appropriate amount of time required to progress from the floor (eg, rehabilitation) to the ceiling (eg, return to performance). The resilience and robustness that come from training take time, and different physical capacities will adapt at different rates. Progressive, gradual, and systematic increases in training load allow athletes to safely progress to the ceiling, reducing injury risk, improving availability, and enhancing performance.

Keywords: injury prevention; load; rehabilitation; strength and conditioning; training; workload.

Download the full article HERE.

How Much? How Fast? How Soon? Three Simple Concepts for Progressing Training Loads to Minimize Injury Risk and Enhance Performance

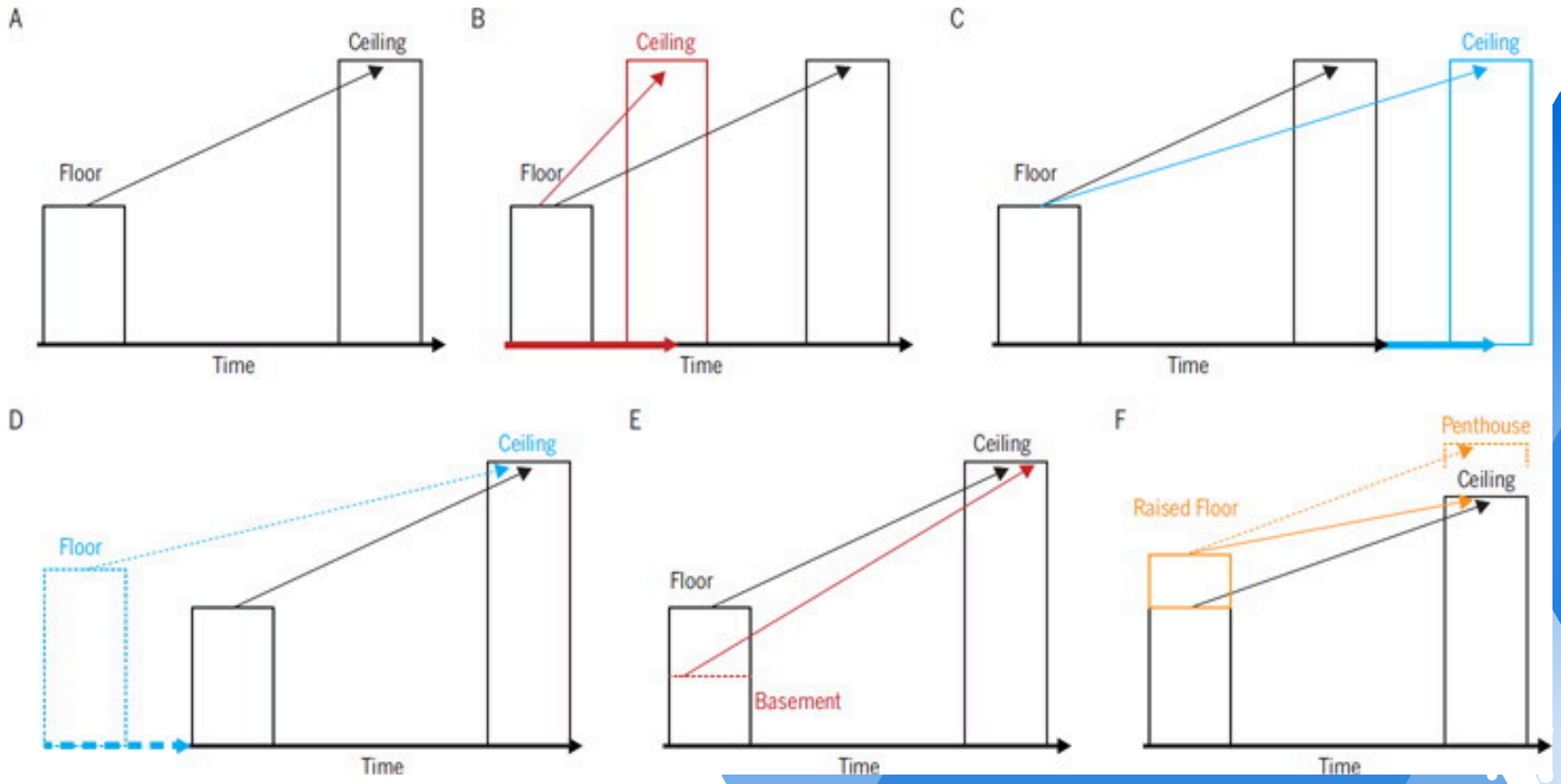




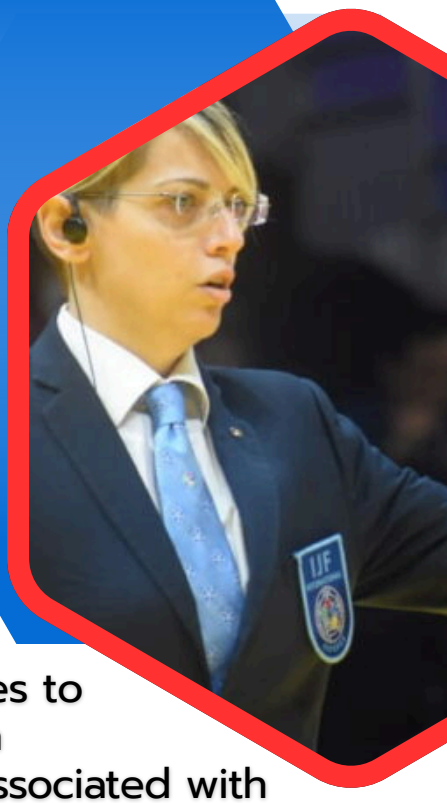
[CLINICAL COMMENTARY]

How Much? How Fast? How Soon? Three Simple Concepts for Progressing Training Loads to Minimize Injury Risk and Enhance Performance

TIM J. GABBETT, PhD[1,2]



Modeling how penalty sequences influence decisive scoring in elite judo



Su MY, Wen TH. Modeling how penalty sequences influence decisive scoring in elite judo. Sci Rep. 2026 Mar 31.

Penalty sequences are a central component of tactical decision making in elite judo. Although prior research has examined the frequency and consequences of shido penalties, limited attention has been given to how an opponent's shido relates to the timing of a decisive outcome. This study aimed to estimate the interval from an opponent's shido to a subsequent ippon and to examine whether the covariates associated with this interval differed between the opponent's first-shido and second-shido phases. Bout-level data from the Tokyo 2020 and Paris 2024 Olympic Games and the 2021–2024 World Judo Championships were analyzed using Weibull accelerated failure time models. The results revealed clear phase-dependent patterns. Following the opponent's first shido, time to ippon was significantly prolonged by Golden Score entry and increased with the winner's pre-penalty shido count, while ranking differential showed a marginal delaying effect and heavier weight categories tended to resolve faster. In contrast, after the opponent's second shido, Golden Score remained the dominant predictor of longer time to ippon, and the winner's pre-penalty shido count and weight category retained statistically significant associations, whereas ranking differential and other bout characteristics were not significant. Sensitivity analyses reinforced this asymmetry: the first-shido model exhibited broader dependence on contextual covariates, whereas the second-shido model was comparatively concentrated in a smaller set of drivers. These findings indicate that the correlates of shido-to-ippon timing differ across penalty phases, with later phases operating under more constrained structural conditions. The proposed phase-aware time-to-event framework provides a quantitative template for penalty-conditioned scoring tempo analysis in elite judo.

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JUDO TRAINING **APRIL** ARCHIVES 26/04

Injury patterns in elite judo athletes: a prospective descriptive study

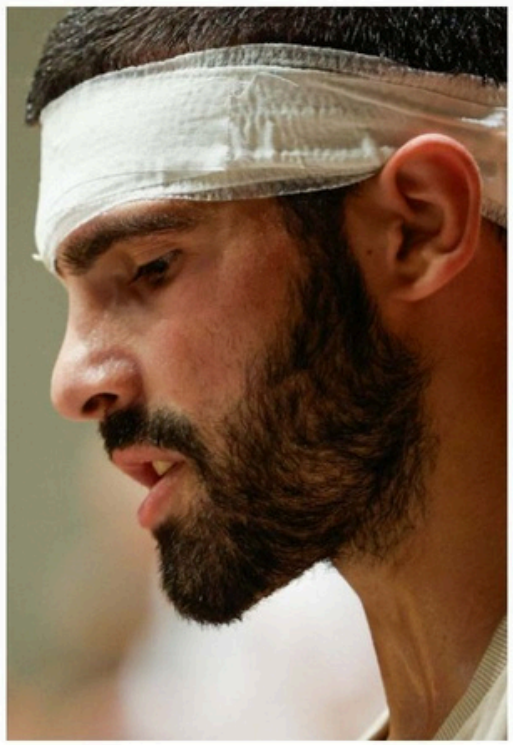
Judo Injuries















Injury patterns in elite judo athletes: a prospective descriptive study

Yacoub S, Schleifenbaum S, Heyde CE. Injury patterns in elite judo athletes: a prospective d escriptive study. Orthopadie (Heidelb). 2026 Apr 27.

INTRODUCTON: Judo is one of the most widely practiced martial arts worldwide and carries a notable risk of musculoskeletal injuries, especially at the elite level. Prospective data on injury patterns are limited. This study aimed to describe injuries and contextual factors in elite judoka to inform prevention strategies.
METHODS: Injuries in elite judoka were prospectively recorded at eight German Olympic training centers from January 2020 to June 2022 using a standardized online questionnaire. Data were analyzed descriptively. A total of 105 injuries were included. The cohort was estimated at around 200 elite athletes; due to variable participation, no exposure data or incidence rates could be calculated.
RESULTS: In total, 105 injuries were documented (41.9% female $n = 44$, 58.1% male $n = 61$). The knee (31.4%), shoulder (17.1%), and elbow (13.3%) were most affected. Ligament injuries predominated (40.0%), including anterior cruciate ligament ruptures (7.6%). Most injuries occurred during throwing actions (78.1%), including the opponent's throwing action (40.0%) and the athlete's own throwing action (38.1%). The majority occurred during training (64.8%). Athletes aged 21–23 years were most affected, often in association with increased training load.
CONCLUSION: Injuries in elite judo occur mainly during throwing actions, with the knee, shoulder, and elbow most commonly affected. Anterior cruciate ligament rupture is a relevant diagnosis. These findings support the development of targeted prevention strategies, particularly for knee injuries.

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More articles about injuries in judo HERE.

Injury patterns in elite judo athletes: a prospective descriptive study

What are the main injury patterns in elite judo athletes?

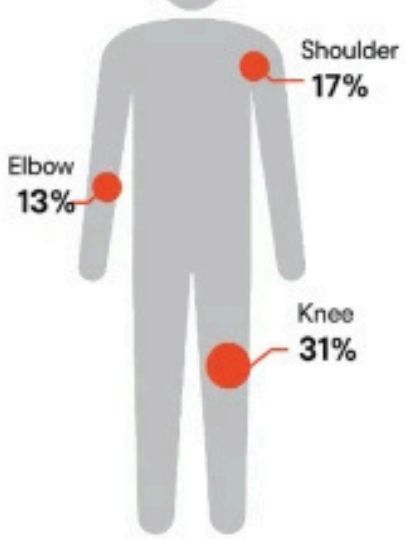
Study design & patient groups

- Prospective injury registry in elite judo athletes
- 105 injured athletes from 8 German Olympic training centres
- Data collected between 2020 and 2022

Target parameters

- Injury type and diagnosis
- Injury location (body region)
- Injury context (training vs. competition, throwing actions)
- Athlete characteristics (age group, weight class, training volume)

Most affected body regions



Results

- 105 injuries in elite judo athletes
- 78% of injuries during throwing actions
- 65% occurred during training
- Ligament injuries most common

Take Home Message

- Most injuries during throwing actions
- Knee most affected
- Ligament injuries predominant
- Findings may support targeted injury prevention in elite judo

Yacoub S, Schleifenbaum S, Heyde CE (2026)
Injury Patterns in Elite Judo Athletes.
Die Orthopädie DOI 10.1007/s00132-026-04828-7

Die Orthopädie

JUDO TRAINING **APRIL** ARCHIVES 26/04

All Japan Judo Championship 2026 - ONE OF THE BEST EVER!!!

https://www.youtube.com/watch?v=OCnf5bZxZX0



JUDO TRAINING

MAY

ARCHIVES 26/05





- ⇨ *Interview with Julia Figueroa*
- ⇨ *Reference Values for Maximal Strength in Elite Judo Athletes*
- ⇨ *Perceived health benefits of martial arts and combat sports*
- ⇨ *and much more..*



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Reference Values for Maximal Strength in Elite Judo Athletes: National- and International-Level Competitors



Campos BT, Abad CCC, Macedo Penna E, Lima COV, Avelar AF, Mara de Rezende C, da Silveira-Rodrigues JG, Prado LS. Reference Values for Maximal Strength in Elite Judo Athletes: National- and International-Level Competitors. Res Q Exerc Sport. 2026 Apr 17:1-10.

Maximal strength is a fundamental attribute in judo performance, yet few studies have examined strength differences by sex, weight category, and competitive level among elite athletes. This study aimed to establish normative values for maximal strength in national and international-level judo competitors. A total of 112 elite athletes (68 males, 44 females) underwent one-repetition maximum (1RM) tests in back squat, bench press, and prone row. ANOVA 2-way and t-tests were used to compare strength across sex, weight categories, and competitive levels. Percentile-based classification tables were also developed to assist practical applications. Male athletes demonstrated significantly higher absolute strength than females in all exercises: back squat ($p < .001$, $\eta_2 = 0.50$), bench press ($p < .001$, $\eta_2 = 0.62$), and prone row ($p < .001$, $\eta_2 = 0.45$). Among males, heavier athletes displayed greater strength than lighter categories ($p < .05$), while no such differences were observed among females. International-level athletes outperformed national-level peers in absolute strength across all exercises ($p < .05$; $d = 0.52–0.76$), but relative strength did not differ significantly ($p > .05$). These results highlight key sex- and level-based distinctions in strength and offer evidence-based benchmarks to guide individualized strength training strategies for optimizing judo performance.

Keywords: 1RM testing; combat sports; strength conditioning.

Download the full article HERE.



Perceived health benefits of martial arts and combat sports

Zormann E, Foramitti M, Nater UM. Perceived health benefits of martial arts and combat sports. Front Psychol. 2026 Apr 20;17:1774069.

ABSTRACT

Introduction: While there are many anecdotal claims and a growing body of literature on the health benefits of martial arts (MA) and combat sports (CS), research on their perception by practitioners is scarce.

Methods: This cross-sectional study (*N* = 268) explored the associations between self-rated health and perceived health benefits of MA/CS, by utilizing a MA/CS specific questionnaire as well as widely used measures for mental and physical health. Additionally, the association of training age (in years) and training frequency (per month) with perceived health benefits was examined.

Results: The results of the hierarchical multiple linear regression analyses indicated that training frequency was not associated with perceived health benefits, whereas training age showed a small association. Interestingly, in an explorative step, current self-rated health was associated with additional variance in the perceived health benefits. Small to medium associations were found between mental and physical health.

Discussion: It is concluded that health benefits are reported by MA/CS practitioners regardless of training age or frequency, and may therefore be relevant to a larger population. Nevertheless, future studies are needed to further explore these relationships using a longitudinal approach.

Keywords: HRQOL; combat sports; martial arts; mental health; perceived health benefits; physical health.

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JUDO TRAINING **MAY** ARCHIVES 26/05

Effects of acute HMB-FA supplementation on antioxidant status andmuscle damage in Elite Judoka

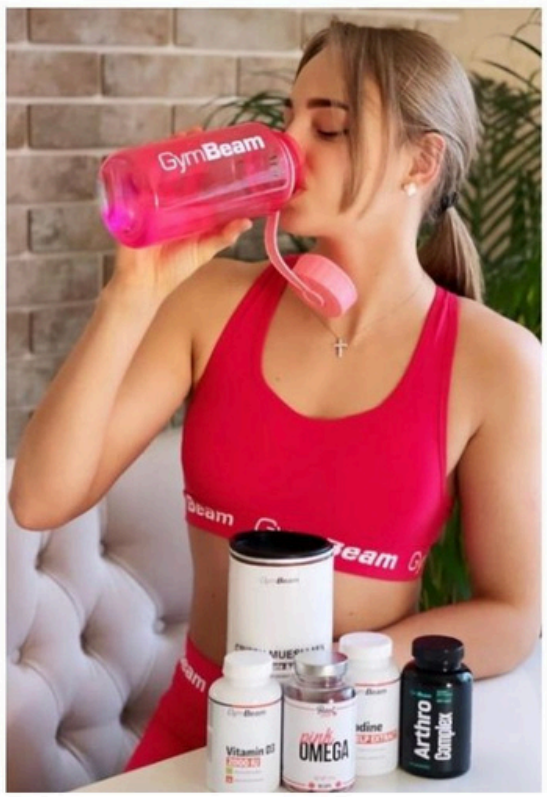
Nutrition & Supplementation















Effects of acute HMB-FA supplementation on antioxidant status and muscle damage in Elite Judoka

Tayebi SM, Mirzaei M, Stout JR. Effects of acute HMB-FA supplementation on antioxidant status and muscle damage in Elite Judoka: a randomized pilot trial. J Int Soc Sports Nutr. 2026 Dec 31;23(1):2665962.

ABSTRACT

Purpose: High-intensity judo bouts induce oxidative stress and muscle damage, impairing r ecovery. This randomized, double-blind, placebo-controlled pilot trial examined whether acute β-hydroxy-β-methylbutyrate free acid (HMB-FA) supplementation influences muscle damage, oxidative stress, and antioxidant biomarkers in elite judoka.
Methods: Twenty-two male elite judoka were randomized to HMB-FA (1.0 g BetaTOR®) or placebo. Supplements were ingested after four simulated Olympic judo bouts. Blood was sampled pre-exercise, post-fourth bout, and 2 h post-bout for creatine kinase (CK), lactate dehydrogenase (LDH), catalase (CAT), glutathione peroxidase (GPX), superoxide dismutase (SOD), malondialdehyde (MDA), and total antioxidant capacity (TAC). Twenty-one completed the protocol (one placebo dropout due to injury). Data were analyzed via 2 × 3 mixed ANOVA with partial η^2.
Results: No group differences were seen for CK, MDA, or TAC ($p > 0.05$). Significant group × time interactions were observed for CAT ($p < 0.001$), GPX ($p = 0.031$), and SOD ($p = 0.025$), indicating greater enzyme increases in HMB-FA (CAT + 54%, GPX + 38%, and SOD + 16%) than placebo (+7-14%). LDH declined in both groups (interaction, $p = 0.001$), but more so in the placebo group (-29.9%) than in the HMB-FA group (-18.6%).
Conclusion: Acute post-exercise HMB-FA supplementation in elite judo athletes did not significantly influence muscle damage or oxidative stress markers but transiently increased antioxidant enzyme activities (CAT, GPX, and SOD). These findings suggest an enzyme-specific effect and highlight the need for future studies using more precise oxidative-stress markers and cellular assays to better evaluate antioxidant responses; however, these effects should be interpreted with caution due to potential limitations related to assay sensitivity and the timing of measurements.

Keywords: Beta-hydroxy-beta-methylbutyrate free acid; elite athletes; muscle recovery; oxidative stress; performance; simulated olympic competition.

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Metabolic–Respiratory Priming in judo

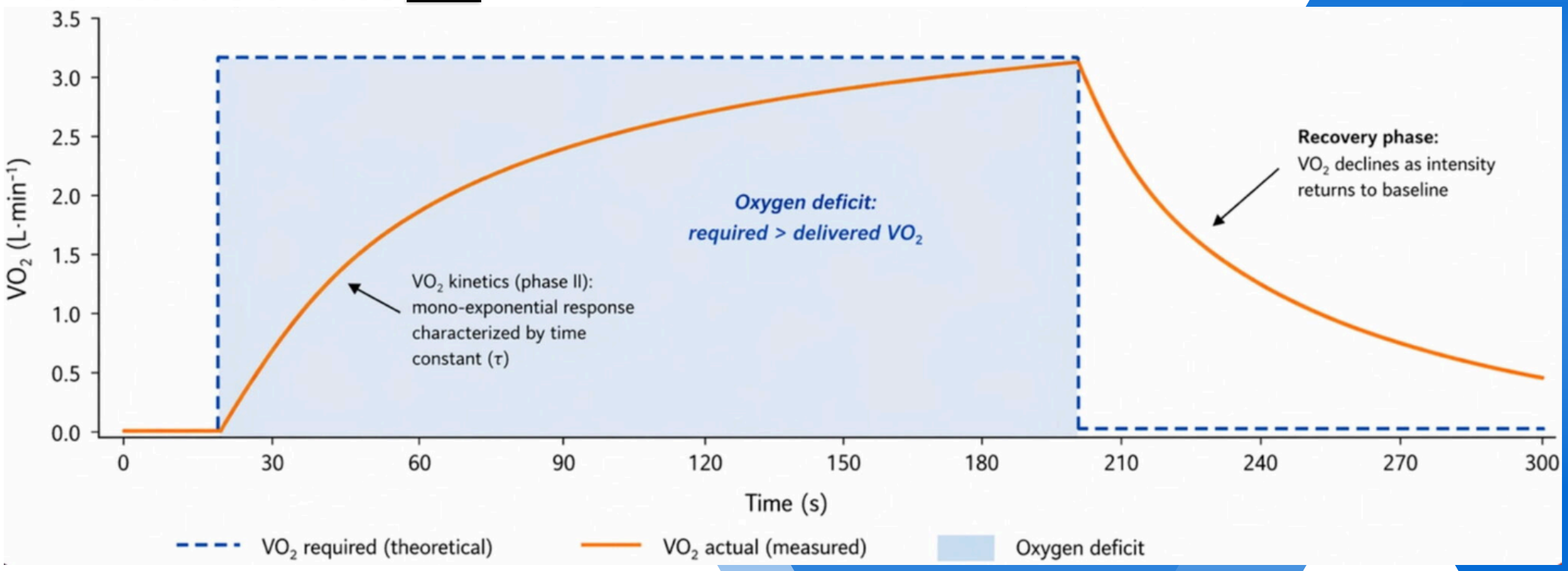


Bruyère F, Aimar F, Centracchio E and Ferretti A (2026) Metabolic–Respiratory Priming i n judo: a physiological perspective on performance onset. Front. Sports Act.

ABSTRACT

Combat sports impose a distinctive performance constraint: maximal tactical and metabolic demands emerge immediately at match onset, before oxidative metabolism has reached steady state. In judo, grip engagement, off-balancing attempts, and scoring actions frequently occur within the opening minute, creating a mismatch between energetic demand and metabolic readiness that may influence tactical control and match outcome. This Perspective formalizes Metabolic–Respiratory Priming (MRP) as a practitioner-derived, hypothesis-generating framework addressing early-match metabolic lag. Grounded in oxygen uptake (VO_2) kinetics and contemporary lactate metabolism concepts, MRP is defined as a brief terminal activation phase designed to accelerate VO_2 kinetics, reduce oxygen deficit, and align metabolic responses at performance onset. Although MRP may coexist with neuromuscular priming strategies such as post-activation performance enhancement (PAPE), it is conceptually distinct in objective, timing, and expression window. We outline the physiological rationale for MRP, propose applied implementation considerations under elite competition ecology, and present a representative warm-up architecture used within the Italian National Judo Team. Limitations and future research priorities are discussed to encourage empirical validation across intermittent combat sports characterized by abrupt high-intensity onset.

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JUDO TRAINING **MAY** ARCHIVES 26/05

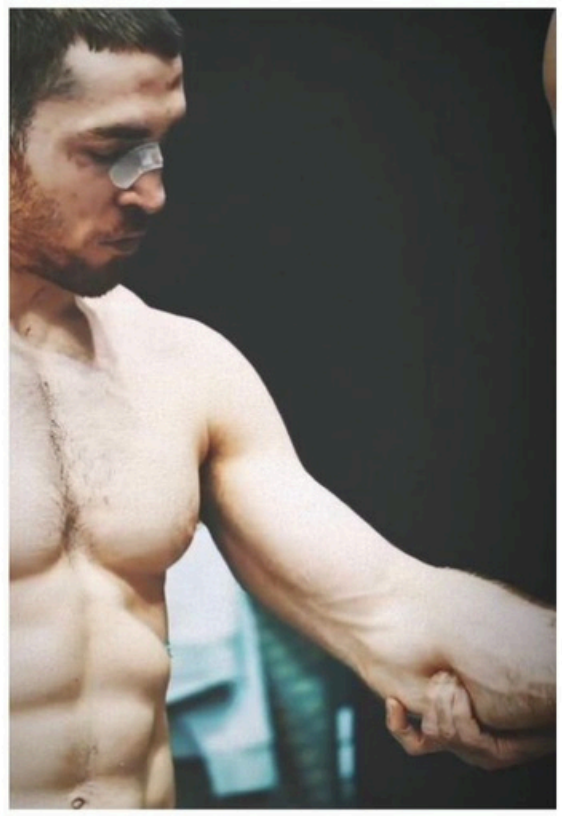
Beetroot juice modulates physiological responses and accelerates recovery during the special judo performance

Recovery Techniques













Beetroot juice modulates physiological responses and accelerates recovery during the special judo performance



Bruyère F, Aimar F, Centracchio E and Ferretti A (2026) Metabolic–Respiratory Priming i Guler, I., Sajedi, H., Fidel, B. et al. Beetroot juice modulates physiological responses and accelerates recovery during the special judo performance: a randomized trial. Sci Rep(2026).

ABSTRACT

The ability of nitrate (NO_3^-)-rich beetroot juice (BJ) to improve exercise depends on training status. However, the mechanisms are understudied. The aim of this study was to investigate the impact of acute BJ supplementation on the Special Judo Fitness Test (SJFT) outcomes in elite and recreational judokas.

Forty judo athletes (17 elite and 23 recreational) completed two SJFT sessions after drinking either BJ or a placebo in a randomized, double-blind, placebo-controlled crossover design. Plasma NO_3^- and lactate, tissue saturation index (TSI) and SJFT outcomes were measured. Plasma NO_3^- increased after BJ intake in both groups ($p < 0.001$). Elite athletes achieved more total throws (TT) ($p < 0.05$) and exhibited lower TSI during SJFT, 1-min post-SJFT heart rate (HR_1), and SJFT index ($p < 0.05$), but higher post-SJFT lactate and TSI than recreational athletes ($p < 0.05$). TT did not improve following supplementation ($p > 0.05$). BJ increased post-SJFT TSI (elite: 2.6 ± 3% vs. recreational: 4.55 ± 2.6%) and reduced HR_1 (elite: - 5.6 ± 3.3% vs. recreational: - 9.8 ± 4.7%) and SJFT index (elite: - 2.7 ± 5.6% vs. recreational: - 6 ± 5.8%) overall ($p < 0.001$ compared to placebo), with greater effects in recreational athletes ($p < 0.05$). BJ also decreased post-SJFT lactate only in recreational athletes ($p < 0.01$). Higher maximal oxygen uptake correlated with smaller BJ-induced improvements in lactate ($r = - 0.57$, $p < 0.001$), HR_1 ($r = - 0.50$, $p < 0.001$), SJFT index ($r = - 0.43$, $p < 0.01$), and TSI during the third period of SJFT effort ($r = - 0.5$, $p < 0.001$) and during 1-min recovery ($r = - 0.35$, $p < 0.05$). BJ primarily attenuates the physiological cost and enhances recovery-related markers during the judo performance, rather than directly increasing the performance, with responsiveness modulated by training status.

Keywords: nitrate supplementation; judo performance; heart rate recovery; tissue oxygenation; training status

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JUDO TRAINING **MAY** ARCHIVES 26/05



Interview with Julia Figueroa

This week spanish athlete Julia Figueroa announced her retirement form the mats after achieved 7th place at Benidorm European Open.
Read the news at EJU website.

There are athletes who leave behind medals and there are athletes who leave behind something far greater: emotion, honesty and inspiration. **Julia Figueroa** belongs firmly in the latter category. The Spanish judoka has **announced her retirement** from elite competition, bringing an end to a career built not only on international success but on resilience, persistence and pure love for the sport. For more than a decade, Figueroa stood among Europe's elite in the -48 kg category, proudly representing Spain on the world's biggest stages....continue reading HERE.



JUDO TRAINING **MAY** ARCHIVES 26/05



Interview with Julia Figueroa

https://www.youtube.com/watch?v=VIhcb_bvF0E&t=8s



Motivation in combat sports: a cross-cultural study on judokas from Brazil, India, and Poland



Rawat K, Pujszo R, Detanico D, Kons RL. Motivation in combat sports: a cross-cultural study on judokas from Brazil, India, and Poland. Health Psychology Report. 2026.

ABSTRACT

Background: This study aimed to (1) validate the Sport Motivation Scale (SMS) for Indian athletes and (2) compare sports motivation among judokas from India, Poland, and Brazil to explore cultural differences in motivational patterns.
Participants and procedure: Study 1 involved 305 Indian athletes across various sports. Confirmatory factor analysis (CFA), reliability testing, and measurement invariance were conducted using the Indian-adapted SMS, Anxiety-Depression-Stress Scale, and Achievement Motivation Scale. Study 2 included 104 judokas (India: 37, Poland: 32, Brazil: 35). Culturally validated versions of SMS were used to assess intrinsic, extrinsic motivation, and amotivation. Statistical analysis included the Tukey test, correlation analy-sis, and trend analysis.
Results: The Indian SMS showed good model fit (CFI = .95, TLI = .94, RMSEA = .05), high internal consistency (α = .81-.96), and strong convergent/discriminant validity. Cross-cultural comparisons showed no significant differences in intrinsic motiva-tion, introjected regulation, or identified regulation among judokas, reflecting the standardized philosophy of judo. Differ-ences were mainly observed in externally regulated motivation and amotivation, highlighting the role of sociocultural and structural factors. Career-related factors revealed distinct motivational patterns: career length was associated with identified motivation in Indian judokas and with intrinsic motivation to experience stimulation in Polish judokas, whereas career qual-ity showed associations with both intrinsic and extrinsic motivation across all groups. These findings highlight the im-portance of autonomy-supportive and culturally sensitive sport environments in sustaining long-term athletic engagement.
Conclusions: This study validates the SMS for Indian athletes and reveals that, while core motivational components in judo are largely consistent across cultures, differences in external regulation and amotivation reflect sociocultural and structural influences. These findings highlight the need for culturally sensitive and autonomy-supportive environments to sustain long-term motivation in judo.

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Acute effects of the FIFA 11+ kids warm-up program compared with a judo-specific warm-up

Mor, H., Şar, H., Arslan, T. et al. Acute effects of the FIFA 11+ kids warm-up program compared with a judo-specific warm-up on explosive and functional performance in youth judo athletes: a randomized crossover study. BMC Sports Sci Med Rehabil (2026).

ABSTRACT

Background: The FIFA 11+ Kids (FIFA 11+) warm-up program is effective for injury prevention and to enhance sports performance, including vertical jump (VJ), sprint, balance, and agility. However, no previous study has examined the acute effects of FIFA 11+ on performance outcomes in youth judo athletes. Therefore, this study aimed to investigate the acute effects of the FIFA 11+ warm-up program on selected physical performance parameters of youth judo athletes compared to the judo-specific warm-up (JSWU). This study employed a randomized, counterbalanced crossover design.

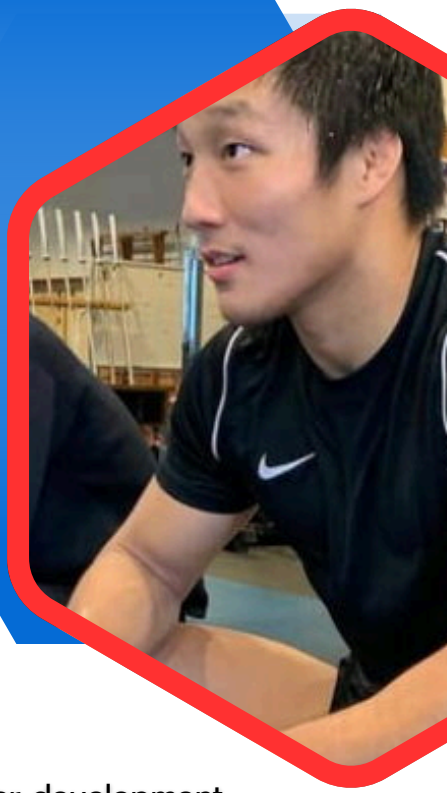
Methods: Sixteen male competitive youth judo athletes (age: 11.81 ± 1.52 years; height: 151.44 ± 11.79 cm; weight: 46.25 ± 14.42 kg; body mass index (BMI): 19.95 ± 5.50 kg/m2; training age: 3.56 ± 1.31 years) completed two warm-up conditions (FIFA 11+ vs. JSWU). The following performance tests were conducted during the test sessions: vertical jump, 5–10 m sprint, bilateral leg strength (LS), back strength (BS), handgrip strength (HS), lower-limb functional strength (single hop for distance (SLHD), triple hop for distance (THD), crossover hop for distance (CHD)), change of direction (CoD), broad jump and overhead medicine ball (OMB) throw.

Results: There were significant differences between JSWU and FIFA 11+ conditions for vertical jump (39.44 ± 7.21 vs. 41.88 ± 6.67, $p = 0.008$, $\eta^2 = 0.40$), anaerobic power (641.45 ± 211.13 vs. 665.69 ± 228.44, $p = 0.010$, $\eta^2 = 0.38$), and overhead medicine ball throw (375.19 ± 110.72 vs. 410.44 ± 114.95, $p = 0.002$, $\eta^2 = 0.50$). Significant differences were also observed in SLHD (right and left) and CHD (left), although the effect sizes were moderate to large.

Conclusions: The findings indicate that the FIFA 11+ program produced small acute improvements in selected explosive and unilateral functional performance outcomes (i.e., vertical jump, OMB throw, SLHD, and CHDLeft), while most other variables showed no significant differences compared with the judo-specific warm-up. These findings should be interpreted cautiously despite the large effect sizes, as the magnitude of improvement was practically small. The FIFA 11+ program may be a potential alternative warm-up option, though its practical application should be interpreted with caution.

https://ubortho.com/wp-content/uploads/2020/02/FIFA-11-for-kids.pdf

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Neuromuscular Adaptations to Traditional Set and Cluster Set Configurations in Block Periodization for Strength and Power Development in Elite Junior Judo Athletes

Laksmana, R., Tomoliyus, & Sukamti, E. R. (2026). Neuromuscular Adaptations to Traditional Set and Cluster Set Configurations in Block Periodization for Strength and Power Development in Elite Junior Judo Athletes. International Journal of Multidisciplinary Research and Analysis, 9(5), 2700-2707.

ABSTRACT

Elite junior judo athletes training under high concurrent technical-tactical loads face challenges in neuromuscular development and fatigue management. Cluster set (CL) resistance training, which incorporates brief intra-set rest intervals, has been proposed to enhance power output and reduce acute neuromuscular fatigue compared with traditional sets (TS). However, its long-term effects in elite combat sport athletes remain unclear. This study compared neuromuscular adaptations following a 12-week block periodisation programme using TS versus CL configurations in elite junior judo athletes. Twenty-two elite junior judo athletes (14 males, 8 females; age 16.55 ± 0.74 years) completed a 12-week programme consisting of hypertrophy (Weeks 1–4), maximal strength (Weeks 5–8), and power (Weeks 9–12) mesocycles. During the power phase, participants were randomised into TS (n = 11) or CL groups (n = 11; 45-second intra-set rest every two repetitions). Primary outcomes included 1RM back squat, 1RM bench press, countermovement jump height (CMJ), and peak barbell velocity (PV), assessed at four time points. Mixed ANOVA (2 × 2) examined group × time interactions during the power mesocycle. Significant improvements were observed across all variables during the baseline mesocycles (Cohen's d = 1.22–1.90; $p < 0.001$). Both groups improved significantly during the power mesocycle, with no meaningful group × time interactions for squat strength, bench press, or CMJ. Both groups also showed a force-dominant shift in the force-velocity profile, indicated by reduced PV alongside increased 1RM. These findings suggest that TS and CL produce comparable neuromuscular adaptations over a four-week power mesocycle. CL may therefore serve as a practical alternative for managing concurrent technical-tactical training loads in elite junior judo athletes.

KEYWORDS: Block periodisation, cluster set, force-velocity profiling, neuromuscular adaptation, velocity-based training, judo

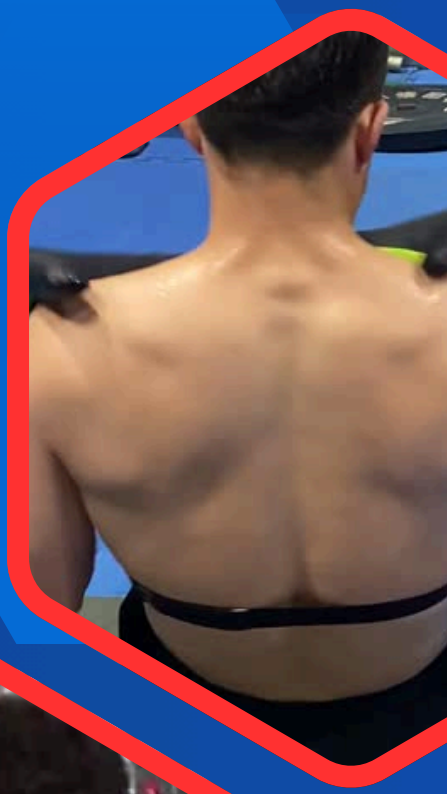
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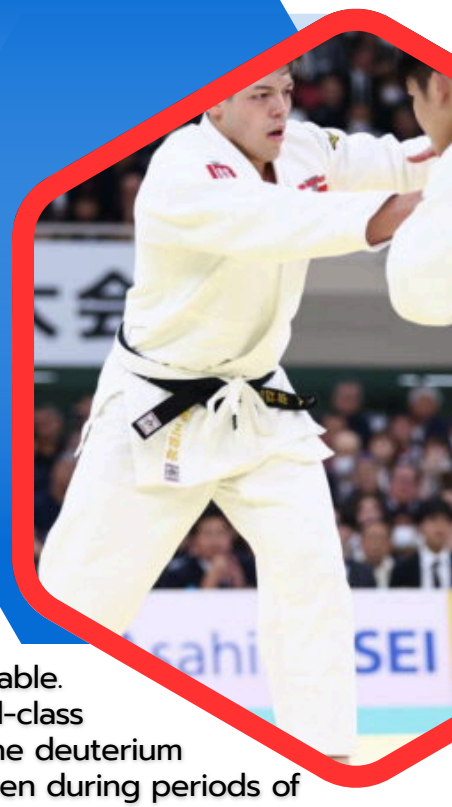
- *Longitudinal changes in body composition and water turnover in a world-class male*
- *Concussion in Judo Athletes*
- *Time-motion Analysis of Female Para Judo Athletes*
- *and much more...*







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Longitudinal changes in body composition and water turnover in a world-class male judo athlete: A case report

Takubo N, Kondo E, Uchizawa A, Hiraoka H, Masuchi K, Okada H, Sagayama H. Longitudinal changes in body composition and water turnover in a world-class male judo athlete: A case report. Physiol Rep. 2026 Jun;14(11):e70965.

ABSTRACT

Limited longitudinal data on the physiology of world-class athletes in weight-category sports are currently available. This case report describes 3-year longitudinal changes in body composition and water turnover (WT) in a world-class male judo athlete during his second to fourth collegiate years. WT and total body water were assessed using the deuterium dilution method, with measurements conducted annually during these 3 years. Throughout the study period, even during periods of recovery from injury, the participant maintained a rigorous training load of 11 sessions/week by substituting intensive resistance training for judo. Between the second and third years, his body mass increased by 2.7 kg, with fat-free mass (FFM) accounting for approximately three-quarters of this gain (1.9 kg). Similar increases in body mass and FFM were observed between the second and fourth years. Seasonal fluctuations in WT accompanied these changes, reflecting varying training loads and competition schedules. This report provides a proof of concept for the high-precision monitoring of world-class athletes, thus offering valuable insights into body water dynamics and seasonal physiological variations for developing safer weight-management strategies in judo and other combat sports.

Keywords: athletic performance, body water, hydration, longitudinal studies, men, weight loss

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Concussion in Judo Athletes: A Structured Return-To-Competition Protocol

TCarvalho, M., Meira Gonçalves, J., Carvalho, B., & Silva, V. (2026). Concussion in Judo Athletes: A Structured Return-To-Competition Protocol Clinical Journal of Sport .

ABSTRACT

Objective: To design a structured Return-to-Competition (RTC) protocol for judo athletes by adapting the 2023 Amsterdam International Consensus Statement on Concussion in Sport to judo-specific biomechanics and training demands.
Data Sources: We searched PubMed for English-language publications from January 1, 2010, to January 1, 2025 (search conducted February 1, 2025). Keywords included brain concussion, return to sport, martial arts, and judo. We identified additional sources by screening reference lists and retrieving consensus statements and federation protocols.
Main Results: We integrated evidence on concussion recognition, acute assessment, and graded exertion with judo-specific technical demands to construct a staged RTC pathway. The protocol adapts general return-to-sport principles by introducing judo-specific substages progressing from symptom-limited activity and graded aerobic exercise to noncontact technical drills (tandoku-renshu) and structured reacquisition of key judo competencies, including breakfall skills (ukemi). Controlled partner drills (uchikomi) and sparring (randori) are reintroduced only after clinical recovery and symptom stability within defined progression and regression criteria (including symptom "flare" thresholds), with medical clearance required before full-contact training. The protocol was refined through consultation with a sports medicine physician experienced in judo.
Conclusions: This judo-specific RTC protocol translates international consensus recommendations into tatami-relevant stages with explicit progression criteria. Implementation provides clinicians and coaches with a structured framework that may reduce premature return-to-competition and recurrent injury risk in judo athletes. Prospective validation in judo settings is warranted.

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Comparison of stress sources and coping strategies in children practicing judo and their non-training peers

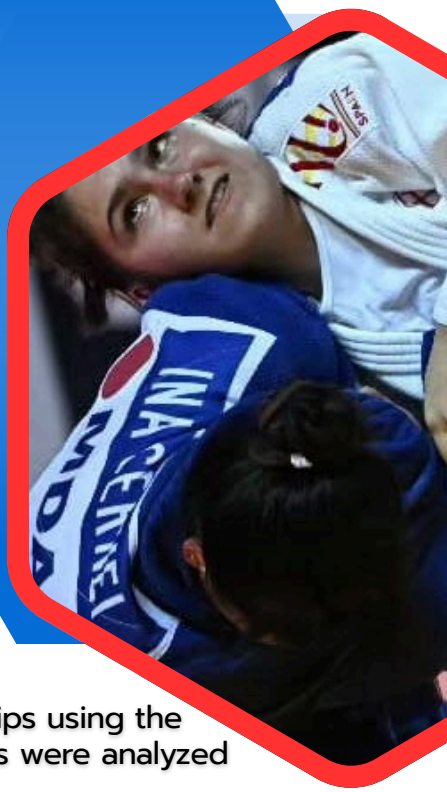
Szczepanik K, Kurowski P, Siekańska M. Comparison of stress sources and coping strategies in children practicing judo and their non-training peers. BMC Sports Sci Med Rehabil. 2026 Jun 17.

ABSTRACT

Background: The age of 10 to 15 is a period of intense psychosocial changes, often accompanied by increased emotional tension. To date, there is a lack of in-depth analyses in which stress responses and coping strategies are compared between physically active children and their peers not engaged in regular sports training. The study was grounded in transactional and sport-specific coping frameworks and aimed to compare students practicing judo with those not involved in any
sports discipline in terms of stress sources, symptoms and coping strategies. Understanding how stress perception and coping profiles differ between children engaged in regular sport and their non-training peers may help identify targets for preventive and psychoeducational programmes in early adolescence.
Methods: A total of 553 students aged 10 to 15 participated in the study, including 276 children who regularly practiced judo and 277 peers not engaged in any sports disciplines. The grouping criterion was a self-reported participation in training at least three times per week or the absence of regular physical activity. Stress coping strategies were assessed using the standardised "How do you cope?" (JSR) questionnaire developed by Juczyński and Ogińska-Bulik, along with an original survey including questions on stress sources, symptoms and responses.
Results: Children practicing judo reported significantly lower levels of school-related stress than their non-training peers (pHolm = 0.006), with 43.8% indicating they "never" or "rarely" experience stress (vs. 25.3% in the non-training group). Judo students also felt safer at school ("always": 44.6% vs. 26.7%; pHolm = 0.006). School-related stressors such as grades, teacher criticism, tests, loneliness and other concerns were more frequently reported by the non-training children (all pHolm < 0.038). Psychosomatic symptoms such as lack of concentration (53.8% vs. 32.6%), stomach pain (40.1% vs. 24.3%) and hand tremors were also more common in the non-training group (pHolm = 0.014). Judo practitioners were more likely to cope through physical activity (42.8% vs. 11.3%; pHolm = 0.008), while non-training students more often used social media (46.4% vs. 29.5%) and video games (42.8% vs. 25.0%; pHolm = 0.008 for both). Judo practitioners showed lower emotion-focused coping, whereas evidence for higher situational active coping was weaker and should be interpreted cautiously.
Conclusion: The study indicates that judo participation was associated with lower school-related stress and fewer selected psychosomatic symptoms in children, as well as with more frequent use of physical activity as an everyday coping behaviour. Judo practitioners were less likely to use passive stress relief (e.g. social media) and it was more probable for them to engage in physical activity. Findings align with sport-coping taxonomies and suggest applied opportunities for coping-skills training within youth judo. These findings suggest that structured sport participation, such as judo, may be associated with more favourable stress-and-coping profiles in early adolescence, and warrant further investigation in longitudinal designs.

Keywords: Coping effectiveness; Emotion-focused vs. task-focused coping; Physical activity and mental health; Transactional stress and coping; Youth sport psychology.

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Time-motion Analysis of Female Para Judo Athletes With Visual Impairments

Gutiérrez-Santiago A, González-Harcevnicow MA, Portela-Riveiro M, Prieto-Lage I. Time-motion Analysis of Female Para Judo Athletes With Visual Impairments: Influence of the New Sport Classes and Weight Categories. Am J Phys Med Rehabil. 2026 Jun 22.

ABSTRACT

Objective: This study aimed to describe and analyze the temporal structure of combat in female Para judo and to examine the influence of sport class and weight category following the classification changes introduced by the International Blind Sports Federation in 2022.
Design: An observational methodology was applied to 116 matches from the 2022 IBSA Judo World Championships using the OTSJUDO v.2 system. Temporal variables related to standing-combat sequences, pauses, and displacement times were analyzed according to sport class (J1 and J2) and weight category.
Results: Clear differences emerged between sport classes. J1 athletes exhibited longer pauses, whereas J2 athletes showed more dynamic combat, with longer total and sequential standing-combat time and shorter pauses. Weight-category effects varied by class. In J1, extra lightweight athletes (-48 kg) showed a more intermittent pattern with shorter pauses, while heavier categories presented longer pauses and displacement times. In J2, extra lightweight athletes performed shorter standing-combat sequences than other categories. Between-class comparisons within weight categories revealed differences mainly in intermediate divisions, particularly in standing-combat sequences (-57 kg) and pause duration (-70 kg).
Conclusion: Sport class emerged as the primary determinant of temporal combat dynamics in female Para judo, with weight category acting as a secondary modulating factor.

Keywords: Combat sports; Female athletes; Para judo; Performance analysis; Time-motion analysis; Visual impairments.

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Common grappling submissions: A descriptive, illustrative and literature review of anatomic structures at risk and pathophysiology

Hasegawa ME, Rimm JB, Ishikawa KM, Obana KK, Sy JW, Horng JC, Chan SK, Wake JL, Cage M, Scoggin JF, Crawford SN. Common grappling submissions: A descriptive, illustrative and literature review of anatomic structures at risk and pathophysiology. Hawaii J Health Soc Welf. 2026 Jun 1;85(6):132-141.

ABSTRACT

Grappling disciplines have immensely grown in popularity. These martial arts and sports, such as Judo, Brazilian Jiu Jitsu, Sambo, and Mixed Martial Arts, utilize techniques and movements to maintain control, subdue, or submit an opponent. Grappling submissions introduce risk of injury through a variety of specific moves, positions, and mechanisms. Yet grappling disciplines remain relatively niche, shrouded with confusing, non-descriptive terminology and jargon. This often results in a poor understanding of injury mechanisms, anatomic regions injured, and pathophysiologic cause of injury. The lack of basic anatomic and physiologic understanding is a potential barrier to optimal care and future research endeavors by clinicians in a burgeoning patient population. As such, this study aims to provide a concise guide to common grappling submissions, with illustrative examples and pathophysiologic mechanisms, description of anatomic structures a\t risk, and a literature review of injuries, with intention of improving care, and facilitating future investigative efforts by clinicians.

Keywords: Brazilian Jiu Jitsu; Grappling Injuries; Martial arts; Mixed Martial Arts; Submissions.

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Dietary habits, lifestyle, and health status among former judoka who practiced rapid weight loss

Tavra M., Krstulović S., Dadić J. Motter A. and Kuvačić G. POVEZANOST PREHRAMBENIH NAVIKA, ŽIVOTNOG STILA I ZDRAVSTVENOG STATUSA KOD BIVŠIH JUDAŠA KOJI SU PRAKTICIRALI RAPIDNO REDUCIRANJE TJELESNE MASE. 34th INTERNATIONAL SUMMER SCHOOL FOR KINESIOLOGISTS. Proceedings, June 2026,. 896-900.

ABSTRACT

The aim of this study was to determine the correlation between dietary habits, lifestyle, and health status among formerjudoka who practiced rapid weight loss (RWL). For this purpose, 236 former judoka were surveyed using the CSPCHQ questionnaire. Basic descriptive statistics, including the number of participants, arithmetic mean, standard deviation, minimum, and maximum values, were calculated for all analyzed variables. The correlation between variables was examined using Spearman's correlation coe cient, with 95% con dence intervals calculated alongside the correlation coe cients. The level of statistical signi cance was set at $p < 0.05$. The results indicate that among former judoka who practiced rapid weight loss during their athletic careers, a history of RWL was not directly associated with current dietary, lifestyle, and health status indicators. However, current dietary patterns and dietary self-control showed relatively signi cant correlations with health status. It can be concluded that in understanding the health of former judoka, it is necessary to consider not only their previous athletic practices but also their current lifestyle habits.

Keywords: combat sport, questionnaire, health

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Judo-Based Falls Training in Older Adults: An Olympic Fighting Art Is Not Just a Way to Win Medals

Singh K, Malliaropoulos N, Callan M, Kamitani T, Ikumi A, Sakuyama N, Maffulli N. Judo-Based Falls Training in Older Adults: An Olympic Fighting Art Is Not Just a Way to Win Medals. Clin J Sport Med. 2026 Jun 25.

Falls are common, and, in older adults, can be catastrophic. Most fall-related deaths occur in individuals 65 years and older, with falls more generally associated with declines in functional independence and quality of life.[1–3] Collectively, falls impose a substantial burden on health care systems worldwide.[4] Although conventional fall-prevention strategies may reduce incidence, few consider injury mitigation.[5] As such, the concept of safe falling has been relatively overlooked. In the martial art of judo, ukemi (breakfall) techniques are specifically designed to teach judo practitioners how to fall safely. Practised by millions globally, judo and ukemi-based training has been adapted for older adults through various initiatives, including the British Judo Association's Finding Your Feet program.[6] This program aims to reduce fall-related injury risk and alleviate the biopsychosocial consequences that follow. We examine the biomechanical principles underpinning ukemi and explore how their application may reduce the impact of falls in ageing populations.

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