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PARKOUR TRAINER HANDBOOK

UrbanLeap - Erasmus+ Sport Cooperation Partnership

Project No. 101185120

BENEFICIARIES

Croatian Gymnastics Federation - HGS (Croatia)

Gimnastički klub Brezovica (Croatia)

ASD KRAP (Italy)

ZRS Koper (Slovenia)

Gymnastics Federation of Šibenik-Knin County (Croatia)

Street Fit (Bulgaria)

Sport Club “Recreate” - Sofia (Bulgaria)

Lead Beneficiary:

Croatian Gymnastics Federation (HGS)

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Project summary

UrbanLeap – “Parkour teaches you to be sure of what you are able to do” is a 24-month Erasmus+ Cooperation Partnership project coordinated by Gymnastic Club Brezovica (Croatia), building on the success of the previous URBANGYM initiative. The project addresses a critical gap in parkour education: the lack of standardized, comprehensive training resources for parkour instruction across Southeast Europe. The consortium brings together six partners from four countries — Croatia, Italy, Slovenia, and Bulgaria — combining local and regional gymnastic clubs, national gymnastic federations, a dedicated parkour club (ASD KRAP), and a research institution (ZRS Koper). This multi-sector partnership ensures a comprehensive approach spanning grassroots practice, academic research, and institutional support.

UrbanLeap is structured around five work packages:
(1) project management and implementation;
(2) a comprehensive scientific review of parkour learning methodologies;
(3) the development of a Parkour Trainer Handbook;
(4) the organization of multiplier parkour events in Croatia, Italy, and Bulgaria targeting teenagers and young adults aged 10–18, with a focus on those at risk of social exclusion; and
(5) visibility and dissemination activities throughout the project duration.

The project’s key deliverable — the Parkour Trainer Handbook — will serve as a pioneering, research-driven resource standardizing training methods, improving instructional quality, and promoting safer

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practice environments. Complementing this, the series of outdoor parkour events aims to increase the sport's visibility, encourage youth participation in physical activity, and foster social inclusion and community engagement. UrbanLeap aligns with Erasmus+ priorities on inclusion and diversity, health-enhancing physical activity, and capacity building for transnational cooperation, while capitalizing on FIG's recognition of parkour as a new gymnastics discipline since 2018.

Handbook summary

The Parkour Trainer Handbook is the central deliverable of the UrbanLeap project (Erasmus+ Sport, Project No. 101185120, 2024–2025), developed collaboratively by the full consortium led by GK Brezovica (Croatia), with partners ASD Krap (Italy), ZRS Koper (Slovenia), Gymnastics Federation of Šibenik-Knin County (Croatia), Street Fit (Bulgaria), Sports Club "Recreate" – Sofia (Bulgaria), and the Croatian Gymnastics Federation (HGS).

The handbook is structured across 8 chapters and serves as both a theoretical and practical resource for kinesiology students, coaches, teachers, and practitioners at all levels:

Chapter 1 – UrbanLeap Project & Introduction to Parkour provides the project context and defines parkour as the art of efficient, safe movement through an environment using only one's body. It traces parkour's origins from Georges Hébert's Méthode Naturelle through Raymond and David Belle, the Yamakasi group, and Sébastien Foucan. It distinguishes between Parkour, Freerunning, and Art du Déplacement, and positions parkour as a tool for personal development and education.

Chapter 2 – Parkour as a Life Philosophy explores the ethical and psychological dimensions, centred on Hébert's principle "être fort pour être utile" (be strong to be useful). It covers parkour's role in social responsibility, community building, youth development, mental health benefits, and the concept of flow state.

Chapter 3 – Parkour as a Sport details FIG's recognition of parkour as a gymnastics discipline, covering competition formats (Speed Run, Freestyle, Skill Competition, Chase Tag), the Code of Points 2025–2028, athlete development systems, age-specific training guidelines (from children through older adults), motor ability development across sensitive periods, and ethics/fair play in competitive settings.

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Chapter 4 – Biomechanical and Kinesiological Foundations provides the scientific underpinning of parkour movement, including principles of polystructurality, kinematics and dynamics, movement variability, and motor abilities (coordination, balance, strength, mobility, precision). It covers biomechanics of take-off, flight, and landing, injury prevention, safe load progression, and environmental adaptation.

Chapter 5 – The Coach as a Facilitator addresses the coach's role in parkour, motivation and mindset development, individualisation of training, the coach as role model, and coaching ethics and athlete welfare.

Chapter 6 – Fundamental Parkour Elements is the practical technical core, cataloguing all key movements: vaults (safety, speed, kong, reverse, dash, lazy, thief, kash, double kong), ground movements (roll, stride), jumps and landings (precision jump, 360 precision, splat, cat leap, drop landing), bar and wall movements (tic-tac, wall run, pop-up, climb up, arm jump, turn vault, dyno, palm spin, wall spin, pistol spin), balancing, swinging elements (rail flare, pole swing, lache, underbar), basic acrobatics (frontflip, backflip, sideflip), and flow combinations.

Chapters 7–8 – Annexes & Appendices include FIG scoring tables, training plan templates, a safety checklist, and references.

The handbook is designed to be used sequentially for foundational learning or as a reference tool for session planning. It emphasizes progression, safety, inclusivity, and adaptability, and is freely available to maximize its reach across the European parkour and gymnastics community.

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FOREWORD

This handbook was developed as part of the **Urban Leap Project** (Erasmus+ Sport, 2024–2025) and created in close collaboration with the full project consortium. It reflects the shared knowledge, professional expertise, and collective experience of all partner organizations, and is intended to serve as a practical and educational resource shaped through that joint effort.

The handbook brings together source-based information and applied methodological guidance to support safe and effective practice across different contexts.

Note on Interpretation and Use

This handbook combines information derived from relevant official sources (e.g., applicable rules, standards, and professional literature) with practical methodological guidance developed through project work and field implementation. Recommendations are provided as guidance to support implementation and should be adapted to the specific context, participant needs, and applicable local regulations and organisational policies. The handbook should be read as an educational resource and does not constitute a normative standard.

Inherent Risk and Responsibility

Parkour training involves inherent risk of injury. The guidance in this handbook is provided for educational purposes and to support safer practice; it cannot guarantee safety. Implementation is the responsibility of the coach, organiser, and participants, who must ensure appropriate supervision, equipment, environment, and individual readiness, and comply with applicable local regulations and organisational policies.

Purpose and Intended Use of the Handbook

The purpose of this handbook is to provide a structured, professional, and accessible overview of parkour as a kinesiological, training, and pedagogical discipline. It is intended for students of kinesiology, coaches, physical education teachers, and athletes who wish to understand parkour as a comprehensive movement system.

The handbook integrates fundamental biomechanical and methodological principles with practical experience gained through fieldwork and competitive environments, with an emphasis on safety, progression, and the application of scientific knowledge in practice. Its core objective is to present parkour not only as a sport, but also as a tool for the development of the body, mind, and community.

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How to Use This Handbook

This handbook is designed as both a theoretical and practical resource for students, coaches, teachers, and practitioners. Each chapter is structured to build progressively—from foundational concepts and historical context to biomechanical principles, methodological frameworks, and applied coaching practice. Readers are encouraged to:

- **study the chapters sequentially**, as the early sections provide essential conceptual grounding for the methodological and technical content that follows;
- **use the biomechanics and coaching chapters as reference material** when planning training sessions, analysing technique, or designing educational activities;
- **integrate theoretical insights with practical experience**, applying the principles of progression, safety, and adaptability directly in training environments;
- **approach the material critically**, adapting concepts to individual contexts, athlete needs, and specific training environments.

The handbook is intended to serve as a structured guide for formal education, while also functioning as a practical tool that supports safe, effective, and thoughtful parkour practice. Where appropriate, readers should use the framework provided here to evaluate risk, modify progressions, and make coaching decisions that prioritize both learning quality and long-term athlete development.

Acknowledgements

I would like to thank everyone who has contributed to the development of parkour in Europe, and all athletes and coaches who have, over the years, enriched our knowledge, experience, and sense of community.

Naturally, this handbook would not have been possible without the athletes who selflessly contributed by demonstrating the techniques featured throughout the handbook.

I also extend my sincere gratitude to the partners of the **Urban Leap Project** (Erasmus+ Sport, 2024–2025) for sharing their expertise and supporting this work:

- GK Brezovica (Croatia) as project lead,
- ASD Krap (Italy),
- Znanstveno-raziskovalno središče Koper (Slovenia),
- Gymnastics Federation of Šibenik-Knin County (Croatia),
- Street Fit (Bulgaria),
- Sports Club “Recreate” – Sofia,
- and the Croatian Gymnastics Federation (HGS) as the national partner.

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I am deeply grateful to the entire consortium—each organization and each individual—whose knowledge, professionalism, and commitment helped shape this handbook. Your contribution was not only valuable, but essential in creating a resource of real importance for our community, our coaches, and our athletes.

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1. URBAN LEAP PROJECT AND INTRODUCTION TO PARKOUR

UrbanLeap is designed to further the **growth and accessibility of parkour in Southeast Europe**. Building on the success of the Erasmus+ URBANGYM project, UrbanLeap seeks to address a critical challenge that has emerged in the wake of parkour's rapid expansion**: the lack of standardized, comprehensive educational resources for parkour instruction**. Recognizing the existence of valuable but disparate training materials within various parkour organizations, UrbanLeap's objective is the creation of a unified, research-driven training manual. This manual aims to serve as an indispensable resource for trainers and instructors, promoting the adoption of best practices and improving the caliber of parkour training across the region. Following the manual's development, UrbanLeap will initiate a targeted promotional campaign, featuring a **series of sport events designed to highlight the benefits of parkour**, increase its visibility, and attract the participation of youth and young adults. By integrating solid research, collaborative resource development, and impactful promotional activities, UrbanLeap is committed to fostering the popularity of parkour in Southeast Europe, cultivating a dynamic community bound by a shared enthusiasm for movement and self-discovery.

The UrbanLeap is strategically designed to align with the objectives and priorities of the Erasmus+ program, particularly focusing on **enhancing inclusion and diversity** within the sphere of physical education and sports. By leveraging parkour as a dynamic and accessible discipline, UrbanLeap directly addresses the need for inclusive practices that provide to diverse populations, including those from disadvantaged backgrounds or with fewer opportunities.

By fostering partnerships across countries and disciplines, including different type of organisations in consortium, the project will **bulid capacities of organisations to work transnationaly and across sectors**. This cross-border cooperation is crucial in advancing the quality and accessibility of parkour training, aligning with Europe's broader objectives of fostering unity and shared cultural and educational values.

UrbanLeap also supports **Addressing common needs and priorities** in the fields of education, training, youth and sport. The project's emphasis on creating **standardized, research-based training materials for parkour instructors and practitioners** directly supports the EU's goals of improving educational content and methodologies across member states. Additionally, by integrating parkour into formal and informal learning environments, UrbanLeap contributes to the EU's vision of innovative, inclusive,

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and diverse educational practices that meet the needs of all learners.

Throughout the project, consortium members will have a great opportunity to **enhance the quality of their work**, activities, and practices through engaging in a variety of tasks and collaborating with diverse partners. This multifaceted interaction not only enriches the consortium's collective expertise but also facilitates the inclusion of new actors from different sectors. Such cross-sectoral collaboration paves the way for innovative approaches and practices, broadening the impact and reach of the organizations and institutions involved.

The URBANLeap will fulfill the objective of **enabling transformation and change** at various levels, including individual, organizational, and sectoral, thereby leading to significant improvements and the adoption of new approaches. At the individual level, the project provides opportunities for **personal development through training, workshops, and experiential learning activities**. These initiatives are tailored to enhance skills, increase knowledge, and encourage innovative thinking among individuals, facilitating personal growth and capacity building. At the organizational level, URBANLeap fosters an **environment of collaborative learning and knowledge exchange**. By engaging in joint projects and sharing best practices, organizations within the consortium are equipped to refine their operational methodologies, integrate new technologies, and adopt innovative management practices. Lastly, at the sectoral level, URBANLeap acts as a catalyst for systemic change by advocating for the adoption of new approaches and methodologies across the wider industry. Through the dissemination of project outcomes, success stories, and research findings, the project influences standards, policies, and practices beyond the immediate consortium. This sector-wide impact ensures that the benefits of the project extend to a broader audience, promoting sustainable change and innovation across the entire ecosystem.

In essence, UrbanLeap embodies the spirit of the Erasmus+ program by promoting physical education as a tool for social inclusion, personal development, and educational innovation. Through its comprehensive approach to parkour training and its commitment to inclusion and diversity, the project not only enhances the physical and cognitive well-being of its participants but also contributes to the broader objectives of fostering a more inclusive, educated, and interconnected Europe. This is an especially good time to start with parkour. Important news is that from December 2018. FIG (Fédération Internationale de Gymnastique) **voted to include parkour as a new gymnastics discipline**. This is huge news especially because under FIG there are only 7 disciplines and last time they added one was over 20 years ago! This is also great and big news for all gymnastic clubs, especially for small clubs with weak budgets, because **they can develop one part of gymnastics which is not necessary to have expensive equipment** ,unlike other gymnastic disciplines.

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1.1 About Parkour and What It Is – Philosophy of Movement

Parkour is defined as the art of efficient, safe, and fast movement through an environment using only the capabilities of one's own body. At its core, parkour represents the application of fundamental natural human movements in real-world contexts, emphasizing functionality, adaptability, and purposeful action. Its foundational philosophy stems from the principle *être fort pour être utile* ("be strong to be useful"), which frames the discipline within a broader context of ethical behaviour, responsibility, and personal development.

Parkour training develops the essential components of human motor function: strength, speed, agility, endurance, explosiveness, balance, coordination, spatial awareness, and precision. Simultaneously, it fosters psychological and emotional qualities such as resilience, self-confidence, decision-making ability, risk assessment, and fear management. Parkour is not merely a physical activity—it is a philosophy of movement and a process of personal growth shaped through progressive challenges.

From a broader conceptual standpoint, parkour can also be described as the art of moving in the most fluid and efficient way from one place to another through running, jumping, rolling and leaping over and across any natural or architectural obstacles such as walls, trees, fences, roofs or staircases. Originally created in the outskirts of Paris in the late 1980s, parkour (like other lifestyle sports) was often represented by its early participants as a no-competition, no-rules and no-referee practice, marking its difference from institutionalised, achievement-oriented western sport cultures.

As the discipline developed, these core ideas of utility, efficiency and personal responsibility remained central, while training methods, contexts of practice, and institutional frameworks gradually diversified. Parkour today exists simultaneously as a personal movement practice, a community-based activity, an educational tool, and a recognised sport discipline.

Despite its non-classification as an extreme sport, parkour involves elements of risk that challenge individuals to improve their quick thinking and decision-making skills. The discipline's focus on overcoming physical and mental challenges is seen as one of its key benefits, fostering self-confidence and a greater capacity to manage fear. Importantly, parkour is considered less dangerous than skiing, skateboarding, and many other sports, offering a safer alternative for individuals seeking the thrill of physical activity with a lower risk of injury.

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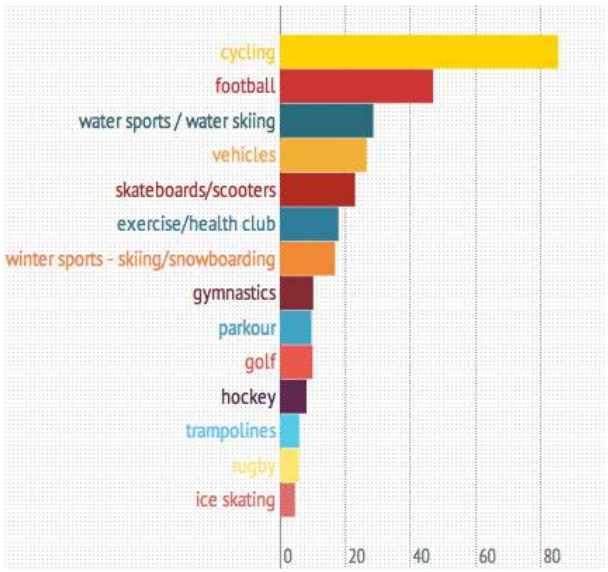
Admissions to A & E for head injuries

https://thelondontraceur.wordpress.com/2013/12/31/parkour-is-less-dangerous-than-skiing-and-skateboarding/



The social aspect of parkour is particularly appealing to youth because of its inclusive, non-hierarchical nature and the absence of formal rules. Bavington (2007) posited that parkour's approach to engaging with urban spaces could be interpreted as a form of social commentary, promoting individual empowerment. **When participants take ownership of their learning process in parkour, it can lead to significant changes in behavior and everyday practices**.

As parkour has evolved from a niche interest to a widely recognized activity, it has increasingly been incorporated into mainstream education and health promotion initiatives. For instance**, the ADAPT Qualification program in the UK aims to certify parkour coaches, integrating fundamental parkour training principles into physical education and school sports programs**. This adaptability of parkour, allowing for personalized learning experiences, underscores its potential as an engaging and beneficial physical activity for young people within educational contexts.

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1.2 History and Founders – From Lisses to a Global Movement

Modern parkour originated in the French towns of Lisses and Évry in the late 1980s and early 1990s, developed by David Belle, his family, and a group of young practitioners later known as the Yamakasi. Their approach was strongly rooted in the principles and methodology of Georges Hébert (1875–1957), a French naval officer and creator of *Méthode Naturelle*—one of the most comprehensive natural physical training systems of the modern era.

Raymond Belle, David's father, trained extensively in Hébert's method during his education and service as a Paris firefighter. His training, based on natural movements, functional strength, dexterity, and purposeful action, directly influenced David's development and laid the foundation for what would become parkour.

Sebastien Foucan later introduced the concept of freerunning to help international audiences understand a more expressive and acrobatic side of movement, while the original Yamakasi group maintained a strong focus on philosophy, discipline, and group dynamics. Through films, documentaries, and international initiatives, parkour evolved from a local practice into a global phenomenon applied today in sport, education, art, rehabilitation, conditioning, and professional training systems.

1.2.1 Parkour and the *Méthode Naturelle*

The historical and philosophical foundations of parkour are deeply embedded in Georges Hébert's *Méthode Naturelle*, a comprehensive system of physical education developed in the early 20th century. Hébert's method was built on three core principles:

1. **Effectiveness** – developing abilities that are practical and useful in real situations.
2. **Naturalness** – training the body through movement patterns that are biologically and evolutionarily natural.
3. **Holistic Development** – shaping the individual physically, mentally, and morally.

Hébert identified 10 fundamental categories of natural human movement, documented in his seminal works:

- walking
- running

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- jumping
- hand-supported movement
- quadrupedal movement
- balancing
- throwing
- catching
- lifting and carrying
- swimming

These categories form the universal motor foundation of human function and are the conceptual basis for parkour's approach to natural, adaptable, and versatile movement.

The influence of *Méthode Naturelle* reached parkour primarily through Raymond Belle, whose training as a Paris firefighter emphasised functional strength, bravery, adaptability, and readiness to act. These qualities shaped David Belle's interpretation of movement and became central to the philosophy and practice of modern parkour.

Thus, *Méthode Naturelle* provides the philosophical and biomechanical root system from which parkour has grown: functional movement, adaptability to environment, self-discipline, and purposeful action.

1.2.2 From Local Practice to European and Global Development

Parkour, as it is known today, came to popular recognition through the work of **David Belle** (whose father returned from Vietnam and passed on his knowledge of Hérbertism to his son) and his friend Sébastien Foucan who both rose to fame through the television documentaries **Jump London (2003) and Jump Britain (2005).** These documentaries introduced the world to the skill, athleticism, daring and sheer beauty of parkour where traceurs jumps from the roofs and structures of iconic landmarks such as the Royal Albert Hall, Shakespeare's Globe Theatre, HMS Belfast, Edinburgh Castle, the Tyne Bridge and the Giant's Causeway. The films also provided a platform for its founding members to disseminate its philosophy. Parkour advocates physical and spiritual immersion in one's environment to gain a fresh understanding of it and reinterprets obstacles as opportunities for physical and creative expression.

The Google Trends graph showcasing the search interest for "parkour for kids" and "kids parkour" from 2004 to the present indicates a growing popularity of parkour among younger audiences over

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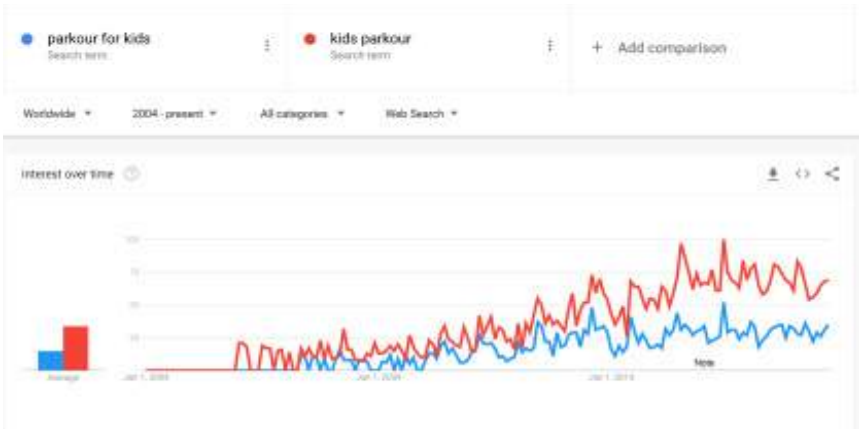
time. This upward trend suggests that parkour, as a form of physical activity and movement discipline, is increasingly capturing the interest of individuals looking for youth-oriented programs or activities. The rising search frequency points to a broader recognition and enthusiasm for parkour, highlighting its development from a niche activity to a more mainstream form of exercise and recreation for children.



The development of parkour clubs in cities worldwide highlights its **growing attractiveness, particularly among young people.** This discipline offers numerous physical benefits, including improved agility, fitness, balance, coordination, spatial awareness, and strength. According to research by Grabowski and Thomsen (2014), parkour holds **significant potential for enhancing school-based health promotion efforts**, appealing to young people's desire for activities that resonate with their personal experiences and interests. Recent studies have also begun to examine the mental and social advantages of parkour. Fernandez-Rio and Suarez (2014) suggest that while parkour is not traditionally viewed as an educational activity, **it fits well within the adventure education model, allowing participants to acquire useful physical, cognitive, and social skills**. These include risk assessment, teamwork, creativity, independence, and problem-solving abilities.

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1.3 Parkour, Freerunning and Art du Déplacement – Origins, Differences, and Connections

Although closely related and sharing the same lineage, Parkour, Freerunning, and Art du Déplacement (ADD) represent three distinct yet interconnected expressions of movement culture. Their differences lie in focus, methodology, intention, and cultural identity.

Parkour – Efficiency, Speed, Safety, Functionality, and Overcoming Obstacles

- fast, direct, and purposeful movement
- problem-solving in dynamic environments
- emphasis on technique, speed, control, precision, safety
- roots in the philosophy of utility
- training physical and mental readiness

Freerunning – Creativity, Expression, and Acrobatics

- artistic expression
- creative freedom
- acrobatic elements (flips, spins, tricking)
- fluid linking of movements
- personal style

***Art du Déplacement* (ADD) – Philosophy, Discipline, and Collective Identity**

- discipline, respect, group cohesion
- personal development through effort
- endurance-based physical training
- mental strength and perseverance
- lifestyle intertwined with movement

Shared Roots

All three share:

- the same historical origins (Belle family, Yamakasi)
- the same philosophical core (usefulness, personal development)
- the same movement DNA (natural human movement, adaptability)

They diverge only in expression—not in foundation.

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1.4 Parkour as a Tool for Personal Development

Parkour provides a unique combination of physical, psychological, and social development. Through progressive exposure to challenges, individuals learn to manage fear, make rational decisions, and assess risk in real environments. Training encourages creativity, adaptability, and movement intelligence.

Ethically, parkour continues Hébert's framework: responsibility, discipline, usefulness, and self-development. It fosters knowledge-sharing, community support, and mutual respect.

Through consistent training, practitioners develop physical capacity, emotional stability, self-discipline, confidence, and resilience.

Parkour has also been integrated into educational, extracurricular, and youth programmes across various countries. Schools and universities include parkour in physical education to develop:

- fitness
- coordination, balance, agility
- creativity and problem-solving
- confidence and independence

Extracurricular clubs provide structured practice, workshops, and community building. Digital platforms offer accessible instructional resources.

Community centres use parkour for youth development, promoting discipline, teamwork, and self-expression, often working with at-risk youth and linking movement to life skills.

Thus, parkour functions as a contemporary tool for education, empowerment, and holistic development.

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1.5 Learning Parkour

Learning parkour

The acquisition of parkour skills represents a complex process that transcends mere physical activity to encompass cognitive and social dimensions, heavily influenced by the practitioner's environment. Traditionally, the **transfer of parkour knowledge occurs through direct instruction from experienced practitioners within informal groups or communities, where skills are disseminated through demonstrations and collective practice.** The rapid increase in popularity of parkour, however, has led to a notable dearth of comprehensive and standardized training materials. This gap, coupled with the sport's inherently physically demanding nature, poses an **elevated risk of injuries for both beginners and seasoned traceurs alike.**

Parkour education is characterized by a blend of face-to-face and digital networked learning. Physical training sessions are often augmented by a wealth of online resources, such as instructional videos, social media group discussions, and advice disseminated through online forums and chat platforms. Learning parkour is continuous and complex, emphasizing not just physical skills but also a deep understanding of one's capabilities and environment. This principle is encapsulated in the traceur motto, "**there is always more to learn**," highlighting parkour as an ongoing adventure driven by its challenges and diversity. Traceurs develop a unique connection with their surroundings, transforming everyday spaces into arenas of personal significance, which enhances their sense of belonging—a phenomenon noted by Ameel and Tani (2012).

However, the **rapid growth of parkour has revealed a significant gap in formal training resources**. Despite the abundance of informal knowledge and online content, the lack of standardized training materials poses risks, especially for beginners. This inconsistency can lead to increased injury rates and hampers the development of safe practice standards within the parkour community. Addressing the need for structured training programs and comprehensive educational resources is essential for the safe advancement of parkour. **Developing uniform guidelines and materials would not only mitigate the risk of injuries but also support the sport's holistic growth, ensuring that practitioners at all levels have access to reliable and effective training methodologies**.

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2. PARKOUR AS A LIFE PHILOSOPHY

Implementation Note: *This chapter discusses philosophical, educational, and psychological aspects of parkour for educational purposes. It does not replace professional medical or psychological assessment, diagnosis, or therapy.*

Parkour is far more than a system of physical movement; it is a comprehensive philosophy grounded in personal development, responsibility, community, adaptability, and the cultivation of mental strength. While its modern form emerged in the late 20th century, its philosophical foundations trace back to Georges Hébert's *Méthode Naturelle* and the values preserved through the first generations of practitioners in Lisses and Évry.

As a contemporary discipline, parkour offers a unique framework for physical, psychological, and social growth. It enables individuals to interact with their environment, overcome obstacles, and gain confidence through progressively more challenging tasks. Parkour philosophy—expressed through practice, behaviour, and community—shapes not only movement ability but also character.

This chapter elaborates the ethical, psychological, and developmental dimensions of parkour, drawing on contemporary research, community practice, and the epistemic culture that emerged around the discipline.

2.1 "*Be Strong to Be Useful*" – The Philosophy of Movement

At the core of parkour lies Hébert's principle *être fort pour être utile*—"be strong to be useful." This idea frames physical ability as a means of contributing positively to one's community and environment. Strength, speed, coordination, and endurance are not ends in themselves but tools for real-world action, responsibility, preparedness, and service.

Parkour embodies this principle through:

- **functional physical preparedness** – developing the capacity to run, jump, climb, lift, and react efficiently;
- **mental resilience** – cultivating composure, decision-making, and emotional regula-

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tion under pressure;
- **ethical behaviour** – emphasising responsibility, respect, preparedness, and self-awareness;
- **social and environmental adaptability** – moving effectively in real, dynamic, unpredictable environments.

Modern practitioners understand "usefulness" beyond its literal meaning. It includes:
- being reliable and supportive to others,
- contributing positively to community practice,
- reducing risk for oneself and others,
- cultivating discipline and setting personal standards.

Thus, parkour's philosophical foundation is not performance for entertainment, but purposeful development—becoming capable, resilient, and self-directed in all dimensions.

2.2 Parkour and Social Responsibility

Parkour is deeply rooted in community values. From its beginnings, knowledge was shared openly and informally—without hierarchy, competition, or exclusivity. This tradition of collaboration continues to shape the discipline today.

Community as an informal learning environment

Research shows that parkour communities function as highly effective informal learning systems. Practitioners develop skills through:
- **observation**,
- **imitation**,
- **peer feedback**,
- **collaborative problem-solving**,
- **shared exploration of environments**,
- **collective reflection on movement challenges**.

Workshops, jams, and local gatherings allow practitioners of all levels to exchange ideas, invent new methods, and co-create training culture. This collaborative model encourages respect, mutual support, and shared responsibility for safety.

Youth development and social inclusion

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Across Europe and beyond, parkour has become a powerful tool in youth development programmes. Community centres, NGOs, and municipalities use parkour to support:

- confidence-building,
- discipline and self-regulation,
- constructive risk-taking,
- teamwork and cooperation,
- self-expression,
- physical literacy,
- resilience in facing life challenges.

Parkour is especially effective in working with at-risk youth because of its openness, accessibility, and non-competitive nature. It empowers individuals by allowing them to progress at their own pace while becoming part of a supportive community.

Redefining risk and responsibility

Unlike many structured sports, parkour does not remove risk—it teaches practitioners to understand, calculate, and manage it. Through progressive challenges, individuals learn:

- to analyse environments,
- to make rational decisions,
- to respect their own limits,
- to consider consequences for themselves and others,
- to communicate with training partners about safety.

In this way, parkour develops not only physical competence but also ethical maturity and responsibility.

2.3 Parkour as Therapy and a Form of Personal Growth

Parkour's psychological benefits have been widely recognised in various educational and community settings. Because the discipline inherently combines movement, problem-solving, and emotional regulation, it provides a natural platform for mental and emotional development.

Fear management and emotional regulation

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One of the defining characteristics of parkour is exposure to controlled fear. Practitioners progressively learn to:

- identify emotional responses,
- distinguish rational fear from irrational avoidance,
- remain calm under pressure,
- regulate breathing and arousal levels,
- commit to movement with clarity and intention.

This process strengthens psychological resilience and improves self-control.

Decision-making and cognitive development

Parkour requires constant perception–action coupling: evaluating surfaces, distances, angles, friction, textures, timing, and environmental changes. This sharpens cognitive abilities such as:

- spatial awareness,
- rapid decision-making,
- anticipation,
- adaptability to unpredictable conditions,
- creative problem-solving.

These qualities transfer far beyond movement practice into academic, professional, and personal domains.

Confidence, self-efficacy, and identity

As practitioners overcome progressively more demanding obstacles, they experience tangible growth. This fosters:

- heightened self-confidence,
- emotional stability,
- stronger sense of personal agency,
- positive body image,
- clarity in goal-setting and self-assessment.

For many individuals, parkour becomes an essential part of their personal identity—an expression of perseverance, passion, and self-discovery.

Therapeutic applications

Community centres in cities such as Paris, London, and Barcelona have integrated parkour into programmes aimed at personal development, rehabilitation, and social reintegration. The discipline

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promotes:

- constructive emotional outlets,
- structured physical engagement,
- embodiment and awareness,
- positive peer relationships.

Parkour thus functions as a form of movement-based therapy, connecting physical skill with psychological well-being.

2.4 Mental Focus, Presence, and the Flow State

Parkour demands full attentiveness. When practitioners engage with complex environments, precise timing, and dynamic movement sequences, they enter a state of heightened concentration and presence.

Focus and embodied attention

Traceurs learn to:

- filter distractions,
- maintain focus on movement tasks,
- act with deliberate control,
- remain mentally anchored in physical sensations and immediate surroundings.

Such focus is necessary not only for performance but also for safety.

Flow state in parkour

Flow—a psychological state of deep immersion and effortless control—emerges naturally during parkour training. It is characterised by:

- a balance of challenge and skill,
- a sense of fluidity and continuity of movement,
- reduced perception of time,
- heightened clarity and responsiveness,
- feelings of satisfaction and meaning.

Flow is especially present in:

- creative movement sequences (freerunning, ADD),
- continuous runs through environments,
- problem-solving challenges (routes, jumps, vault combinations),
- long exploration sessions in urban spaces.

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Mindfulness in movement

Parkour requires practitioners to be mentally present, aware of internal sensations (fear, excitement, fatigue) and external conditions (surfaces, weather, surroundings). This interplay cultivates a form of active, embodied mindfulness—awareness in motion.

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3. PARKOUR AS A SPORT

Implementation Note: *Normative sections of this chapter are based on relevant official documents (e.g., the FIG Code of Points). Development models and age-related recommendations are provided as implementation guidance and should be adapted to context, participant level, and applicable local regulations.*

Parkour, originally developed as a non-competitive movement discipline, has undergone significant transformation over the past decade. With the establishment of national and international governing bodies, the discipline has gained formal recognition as a sport with unified rules, judging systems, competition formats, and coach education standards.

While parkour continues to exist in non-competitive and community-based contexts, the development of structured sport formats has enabled the creation of official events, athlete pathways, and international championships. This chapter provides an overview of the institutional foundations of sport parkour, competition structures, judging frameworks, and the relationship between traditional movement practice and modern sport organization.

3.1 The Role of FIG (*Fédération Internationale de Gymnastique*)

The Fédération Internationale de Gymnastique (FIG) is the international governing body responsible for overseeing parkour as an official sport discipline. Its role includes:

- **establishing the regulatory and organisational framework** for international competitions;
- **developing and maintaining the Parkour Code of Points**, which defines judging criteria, scoring methodology, and technical standards for Speed Run and Freestyle;
- **setting safety requirements and equipment standards** for competition setups;
- **certifying judges, coaches, and event officials** through structured education programmes;
- **coordinating the international competition calendar**, including World Cups and World Championships;
- **collaborating with national federations** (such as the Croatian Gymnastics Federation

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– HGS) to implement parkour development systems at the national level;
- **ensuring athlete welfare**, risk management, and fair play standards;
- **supporting the professionalisation of the discipline**, including athlete pathways, rankings, and international regulations.

Within the FIG structure, parkour is recognised as one of its youngest disciplines, governed by specialised technical committees responsible for rule development, event supervision, and long-term strategic planning.

National federations operate under the FIG framework and are responsible for:

- national competitions,
- team selection processes,
- coach and judge certification at the national level,
- development programmes for youth and senior athletes.

This structure ensures alignment between international standards and national systems while facilitating safe, consistent, and measurable athlete development.

3.2 Competition Structure

Parkour competitions can be divided into **official FIG disciplines** and **widely recognised non-FIG formats**. Each discipline emphasises different performance characteristics, requiring specific physical, technical, and psychological preparation.

3.2.1 Official FIG Disciplines

Speed Run

Speed Run is a timed discipline in which athletes must traverse a predetermined obstacle course as fast as possible. Key characteristics include:

- linear or semi-linear course layout,
- emphasis on efficiency, precision, and optimal line choice,
- strict rules on obstacle completion,
- penalties for missed or improperly executed elements, missed checkpoints, going out of the lane,
- objective scoring based solely on time.

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The discipline demands exceptional coordination, explosive power, movement fluidity, decision-making under time pressure, and high anaerobic capacity. Athletes must demonstrate both biomechanical precision and adaptability to variable obstacle structures.

Freestyle

Freestyle is a judged discipline where athletes perform a 30–45 second run demonstrating creativity, difficulty, execution quality, flow, and use of the course. Scoring is based on:

- **Difficulty** (complexity of moves, technical difficulty),
- **Execution** (safety, landing quality, flow, flow quality)

Freestyle reflects the creative dimension of parkour, blending dynamic movements, rotations, twists, vaults, jumps, bar skills, and stylistic expression. It integrates artistic and athletic elements while maintaining safety and biomechanical correctness.

3.2.2 Non-Official but Widely Practiced Disciplines

Skill Competition

Skill competitions focus on specific technical challenges that must be completed with precision. Unlike Speed Run or Freestyle, skill challenges:

- isolate particular movement or series of movements problems,
- test precision, control, and repeatability,
- often require athletes to complete a predefined jump, vault, climb, or combination,
- are usually scored by success/failure or by incremental difficulty.

Skill formats emphasise technical mastery, spatial accuracy, and problem-solving—drawing directly from traditional parkour practice.

Chase Tag

Chase Tag is a high-speed pursuit-based discipline involving two athletes: one chaser and one evader, inside a modular obstacle course. Although not governed by FIG, it has gained global popularity due to:

- its direct competitive structure,
- intense bursts of speed and agility,
- tactical evasion strategies,
- dramatic visual appeal.

Chase Tag highlights acceleration, reactive agility, environmental awareness, and rapid decision-making, making it distinct from traditional parkour disciplines while still drawing from its movement vocabulary.

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3.3 Judging and Scoring Rules (Code of Points)

Judging procedures in parkour are defined by the official **FIG Parkour Code of Points**, which establishes evaluation criteria, scoring methods, and technical requirements for Speed Run and Freestyle. As the discipline is still evolving, the Code of Points undergoes regular updates to reflect new movement standards, safety practices, and judging guidelines.

For transparency and long-term usability, this handbook will include a **permanent link to the official FIG Parkour rules repository**, so coaches, athletes, and judges can always access the **latest versions** of the CoP and its related judging documentation.

3.4 The Competition and Athlete Development System – Warm-up, Progression, Feedback

Development models are provided as implementation guidance and should be adapted to context, participant level, and applicable local regulations.

The preparation of competitive parkour athletes requires a structured and scientifically grounded training system that integrates warm-up procedures, methodical progression, and continuous feedback. Due to the polystructural, coordination-dominant, and open-skill nature of parkour, athletes must develop a combination of technical precision, physical readiness, perceptual–motor adaptability, and psychological stability.

This section outlines the essential components of athlete development within competitive parkour, based on established sport science principles and the specific demands of Speed Run and Freestyle.

3.4.1 Warm-up Structure and Objectives

A well-designed warm-up is fundamental to performance and injury prevention in parkour. Given the high impact forces, dynamic movements, rapid accelerations, and frequent transitions between locomotion, vaulting, and aerial skills, the warm-up must prepare:

- **neuromuscular activation**,
- **joint mobility and tendon elasticity**,

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- **proprioception and balance**,
- **coordination and rhythm**,
- **progressive exposure to jumping and landing mechanics**.

An effective competition-oriented warm-up generally consists of:

1. **General mobilisation** — raising core temperature and activating major muscle groups.
2. **Dynamic mobility** — targeted range-of-motion work for hips, ankles, shoulders, and thoracic spine.
3. **Neuromuscular preparation** — movement drills that support coordination, rhythm, and spatial awareness.
4. **Plyometric and SSC activation** — controlled jumps, bounds, and acceleration drills to prepare the stretch–shortening cycle.
5. **Technical rehearsal** — practising specific vaults, lines, jumps, bar skills, or combinations relevant to the competition course.

Because competitive environments differ significantly between events, warm-up routines must adapt to:

- obstacle heights,
- surface friction,
- angles and spacing of structures,
- environmental conditions (indoor/outdoor).

Warm-up also plays a psychological role by reducing anxiety and reinforcing movement confidence before performance.

3.4.2 Technical Progression in Competitive Parkour

Progression is the foundation of safe and effective preparation for competition. Due to the variability and complexity of parkour environments, progression must follow clear methodological principles aligned with motor learning research and the specific biomechanical demands of the discipline.

Key principles include:

- **from simple to complex**,
- **from low height to high height**,
- **from controlled to dynamic execution**,
- **from isolated skills to complete lines**,
- **from familiar patterns to novel environments**,
- **from slower, deliberate movement to full-speed execution**

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In Speed Run, progression focuses on:

- efficiency of line choice,
- obstacle optimisation,
- reduction of unnecessary steps or corrective movements,
- improvement of acceleration, deceleration, and momentum management,
- high-frequency repetition of technically identical or very similar patterns.

In Freestyle, progression centres on:

- expanding movement vocabulary,
- building difficulty safely through incremental challenges,
- improving fluidity and linking skills,
- developing spatial awareness for rotations and bar skills,
- rehearsing combinations to increase consistency.

Both disciplines require **impact management** training through progressive landing work, grip engagement, and controlled eccentric loading to protect joints and soft tissues.

3.4.3 Feedback Mechanisms in Parkour Training

Feedback is essential in a discipline where precision, timing, and movement quality directly influence performance and safety. Effective feedback systems in competitive parkour include:

1. External Feedback (Coach-Guided)

- verbal cues (timing, foot placement, momentum direction),
- video analysis (slow-motion review of landings, vault mechanics, and bar work),
- demonstration of ideal movement models (IMM),
- correction of errors through simplified regressions.

External feedback is especially important because parkour movements occur at high speed, making self-assessment difficult in real time.

2. Internal Feedback (Athlete Awareness)

Athletes must learn to recognise:

- sensations of balance and instability,
- force absorption during landings,
- appropriate tension and relaxation,
- trajectory control in jumping and swinging,

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- emotional states (fear, hesitation, over-arousal).

Developing internal feedback improves autonomy and reduces reliance on coaching intervention during competition.

3. Task-Based Feedback

Parkour naturally provides immediate, objective feedback through the environment itself. Success or failure of a jump, vault, or bar movement provides clear information regarding:

- accuracy,
- power generation,
- timing,
- commitment,
- consistency.

Task-based feedback supports deliberate practice and reinforces efficient motor learning.

3.4.4 Athlete Development Across the Season

Competitive parkour benefits from a **periodised seasonal structure** that balances technical development, physical preparation, recovery, and competition readiness across the year.

A typical season includes:

1. Preparatory Phase

- Basic physical conditioning - development of motor abilities (power, strength, coordination, balance, flexibility…), aerobic and anaerobic endurance;
- volume-based technical work with low psychological pressure;
- extensive landing drills and technique refinement.

2. Pre-Competition Phase

- transition to higher-intensity plyometrics and dynamic bar work;
- rehearsing Speed lines and Freestyle runs;
- practising under fatigue and time pressure;
- refining difficulty and consistency of Freestyle skills.

3. Competition Phase

- reduced training volume, increased specificity;
- emphasis on precision, safety, and mental preparation;
- targeted warm-ups and strategic rehearsal on the competition setup.

4. Transition Phase

- recovery, injury management, light technical practice;

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- reflection and analysis of the previous season;
- gradual reintroduction of foundational work.

Because parkour is high-impact, careful monitoring of load—particularly jumps, bar repetitions, and landing volume—is essential to prevent overuse injuries.

3.5 Age-Specific Guidelines for Parkour Training

Parkour requires a developmentally appropriate approach that respects the physical, cognitive, emotional, and psychosocial characteristics of different age groups. These guidelines outline evidence-based principles for safe skill acquisition, progression, and coaching methodology across childhood, adolescence, and adulthood.

It is equally important to keep in mind that, regardless of these guidelines, the approach to each athlete should be individualised. Within every age category, there will be both beginners and more experienced athletes, individuals at different skill levels, with varying body types, motor abilities, training histories, and other biological characteristics. Therefore, certain recommendations may not be fully applicable to every athlete in the same way. Nevertheless, these guidelines remain valuable as they provide coaches with a clear, structured framework to support training planning, safe progression, and effective delivery across different developmental stages.

1. Children (6–9 years)

Primary focus: fundamental movement skills, coordination, playful exploration

What Is Appropriate

- Running, jumping, balancing, crawling, climbing on low structures
- Basic rolls and safe landing patterns on soft surfaces
- Coordination-based games, obstacle courses, creative exploration
- Introduction to awareness, spatial orientation, and controlled movement

What Is NOT Appropriate

- Big height exposure of any kind
- Dynamic bar skills
- High-impact plyometrics

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- Technical vaults requiring precision or speed
- Performance-based pressure

Training Goals

- Develop fundamental motor abilities
- Foster enjoyment, curiosity, intrinsic motivation
- Build confidence and safety habits

Coach Focus

- Positive reinforcement and safety
- Creating a playful and inclusive atmosphere

2. Younger Adolescents (10–13 years)

Primary focus: technical fundamentals, controlled progressions, emotional readiness

What Is Appropriate

- Low/medium vaults (safety, lazy, speed vault progressions…)
- Basic and itermediate acrobatics (basic flips…)
- Age ppropriate physical contitioning
- Basic precisions at low height
- Low bar swings, basic hangs, supporting strength
- Structured learning of landing mechanics
- Simple problem-solving tasks

What Is NOT Appropriate

- High bars or dynamic releases
- Large gaps, drop precisions, or height-based challenges
- High-intensity plyometrics or weighted training

Puberty-Specific Considerations

This age group often includes the early onset of puberty, but changes are inconsistent and vary widely.

For girls, coaches should be aware of:

- Rapid changes in limb length affecting coordination
- Increased joint laxity, especially knees and ankles
- Possible temporary decline in balance due to growth spurts
- Earlier maturation compared to boys, which affects strength ratios and emotional

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readiness

Coaches must adjust expectations and avoid comparing maturing and non-maturing athletes.

Training Goals

- Build reliable technical foundations
- Introduce structured motor learning
- Increase confidence and fear-management strategies

3. Older Adolescents (14–16 years)

Primary focus: technique consolidation, physical conditioning, moderate exposure to challenge

What Is Appropriate

- All foundational, intermediate vaults and acrobatics, connections
- Controlled dynamic bar work (with progressions)
- Medium-height challenges with safety preparation
- Fundamental strength and conditioning
- Moderate plyometrics

What Is NOT Appropriate

- High-risk flips without technical mastery
- Large drop impacts and repeated high-load landings
- Excessive volume during growth spurts

Puberty-Specific Considerations

This age window is marked by the peak height velocity (PHV) phase — the fastest period of growth.

For girls, PHV typically occurs earlier (11–13), meaning:

- They may already be past their most sensitive coordination phase
- Hormonal changes (e.g., estrogen increase) influence ligament laxity
- Greater attention should be placed on knee alignment, landing mechanics, and neuro-muscular control to reduce ACL risk

For boys, PHV often occurs between 13–15:

- Temporary drops in coordination (“adolescent awkwardness”)
- Rapid gains in muscle mass require slow, careful load progression
- Emotional variability and confidence swings are common

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Training Goals

- Strengthen joint stability and control
- Deepen technical precision
- Introduce variable environments safely

4. Young Adults (17–19 years)

Primary focus: high-level skill, greater intensity, possible competition preparation

What Is Appropriate

- Complex vaults, acrobatics and combinations
- Higher bars and dynamic releases
- Plyometric training with monitored intensity
- Structured strength programmes
- Scenario-based training for speed and freestyle

What Is NOT Appropriate

- Excessive training volume without recovery
- High-risk experimentation without supervision

Puberty-Specific Considerations

Most individuals have completed puberty, but:

For female athletes:

- Knee-valgus risk remains elevated; landing technique must remain a priority
- Strength development (especially posterior chain) is crucial for injury prevention

For male athletes:

- Increased testosterone improves force production, but cartilage, tendons, and connective tissues still adapt slowly—overload must be avoided

Training Goals

- Advanced skill development
- Athlete autonomy
- Resilience, confidence, and competition readiness

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Movement Discipline	Sport Parkour
Personal progression	Performance progression
Open environments	Standardised competition setups
Intrinsic motivation	Extrinsic motivation (competition goals)
Exploration and creativity	Precision and replicability
Informal learning	Structured coaching and judging
Variable, unpredictable obstacles	Controlled, predictable layouts
Emphasis on philosophy and lifestyle	Emphasis on results and rankings
Self-paced progression	Externally paced preparation cycles

5. Adults (20+ years)

Primary focus: performance optimisation or general movement literacy

What Is Appropriate

- High-level skill refinement
- Independent flow sessions
- Strength training with external load
- Progressive plyometrics

What Is NOT Appropriate

- High-volume drop training over long periods
- Intensive tricking-style flips without appropriate preparation

Training Goals

- Sustainable progression
- Injury prevention and longevity

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6. Older Adults (30+ years)

Primary focus: longevity, mobility, safe challenge

What Is Appropriate

- Low-impact progressions
- Balance and proprioception training
- Moderate vaults and low bar skills
- Controlled conditioning

What Is NOT Appropriate

- High-impact, high-height, or maximal-force tasks
- High-volume plyometrics

Training Goals

- Maintain mobility and functional strength
- Enhance balance and joint integrity

General Safety Across All Ages

Patterns that always apply

- Mastery before progression
- Progressional adaptation on hard surfaces
- Safe height progression
- Technical consistency before intensity
- Respecting and applying physical conditioning (motor abilities and functional capacities) development guidlines across sensitive periods of development

Special Consideration for Girls in Puberty Due to well-documented biomechanical and hormonal changes:

- Neuromuscular training is critical (glute activation, landing mechanics, knee control)
- Avoid forcing progressions during major growth phases
- Strength training is beneficial and safe when taught properly

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3.6 Motor Ability and Functional Capacities Development Across Sensitive Periods

Sensitive phases for the development of coordination, fitness, and other performance dimensions in specific athlete age categories. The marked fields represent periods that are particularly suitable for the development of anthropological dimensions. (modified according to Starosta and Hirtz, 1989, and Martin, 1991.)

Ability	Age (year)	7	8	9	10	11	12	13	14	15	16	17	18
Coordination abilities	Balance			+	+ +	+ +	+						
	Motor learning	+	+	+	+ +	+ +			+ +	+ +	+ +	+ +	+ +
	Ability to differentiate movement parameters	+	+	+	+	+ +	+ +		+	+	+	+	+
	Reaction speed to auditory and visual stimuli (*auditory and visual reaction time*)	+	+ +	+ +	+								
	Motor rhythm (*rhythmic ability*)	+	+	+ +	+ +	+							
	Spatial orientation ability	+	+	+	+	+	+ +	+ +	+ +				

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Physical conditioning abilities	Endurance	+	+	+	+	+ +	+ +	+ +	+ +	+ +	+ +	+ +	+ +
	Strength			+	+	+	+ +	+ +	+ +	+ +	+ +	+ +	+ +
	Speed	+	+	+	+ +	+ +	+ +	+ +	+ +	+	+		
Other dimensions	Motor learning	+	+	+ +	+ +	+ +	+ +	+	+	+ +	+ +		
	Cognitive functions	+	+	+ +	+ +	+ +	+ +	+	+	+	+		
	Emotional responses	+	+	+	+ +	+ +	+	+	+ +	+ +	+	+	+

Legend: ++ = most favorable sensitive period (fastest adaptation); + = maintenance / slower adaptation (still trainable, but not optimal).

Methodological guidelines (practical)

6-12: "golden age" of skill acquisition, auditory and visual reaction time, motor learning and cognitive functions development - ideal for learning parkour techniques (roll, landing, basic vaults, precision), speed and agility through games and obstacle courses.

12-14: growth transition - maintain technical quality; emphasize stability, landing control, and gradual progressions; beginning of endurance, strength and speed training

14-18: high potential for strength, explosiveness and endurance - systematic development (trunk, arm push strength, take-off mechanics, sprint…), with appropriate load management and recovery.

18+: specialization and periodization - maximal strength/explosive power and energy systems matched to discipline (speed/freestyle), alongside injury prevention.

Important notes

Sensitive periods are population averages; individual differences can be substantial.

Puberty may temporarily reduce coordination ("adolescent awkwardness"); technique often

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regresses briefly before stabilizing and improving again.

Biological maturation in girls often occurs earlier (on average by about 1-2 years), which may shift emphasis slightly earlier.

3.7 Differences Between Parkour as a Movement Discipline and Parkour as a Sport

Although parkour as a movement discipline and parkour as a sport originate from the same historical, philosophical, and biomechanical foundations, their intentions, structures, and training methodologies diverge significantly. Understanding these differences is essential for coaches, educators, and practitioners, as each framework shapes movement behaviour, risk perception, learning processes, and long-term development in distinct ways.

Parkour as a Movement Discipline

Traditional parkour—rooted in Méthode Naturelle, the early practice of Lisses and Évry, and the ethos of the Yamakasi—places emphasis on:

- **personal exploration** of natural human movement,
- **adaptability to variable environments**,
- **creative problem-solving**,
- **intrinsic motivation and self-directed progression**,
- **holistic physical and mental development**,
- **ethical principles** such as discipline, respect, and usefulness.

Movement practice happens in **open, unregulated environments**, where obstacles vary in texture, height, stability, spacing, weather exposure, and unpredictability. The objective is not to "perform" but to **learn, grow, and adapt**, using one's body to navigate real-world challenges.

Knowledge is transmitted through **informal community learning**, including:

- observation,
- peer feedback,
- collective exploration,
- experimentation,

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- trial and error.

Risk is managed personally and progressively, with the discipline fostering internal responsibility, self-awareness, and emotional regulation.

Parkour as a Sport

The sportification of parkour—driven by international federations, competition systems, and formal coaching structures—introduces standardisation and regulation to ensure fairness, safety, and measurable performance. Sport parkour is characterised by:

- **standardised equipment and course design**,
- **codified judging criteria** (FIG Code of Points),
- **clearly defined disciplines** (Speed Run, Freestyle),
- **structured warm-up protocols**,
- **periodised training cycles**,
- **risk management measures**,
- **certified judges and coaches**,
- **national and international rankings**.

Performance is evaluated through **objective measures** (time, completion) or **subjective criteria** (execution, difficulty, flow), transforming movement into a competitive outcome.

Athlete development follows systematic planning with phases dedicated to:

- technical refinement,
- physical preparation,
- psychological training,
- tactical decision-making.

The sport environment demands **higher consistency and precision**, as athletes are repeatedly exposed to fixed obstacles, movement tasks, and performance pressures.

Core Differences

While both forms share the same movement vocabulary—running, vaulting, climbing, swinging, jumping, landing—their execution and purpose differ:

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Shared Foundations

Despite these differences, both expressions:

- stem from the same historical and philosophical lineage,
- utilise the same natural human movement patterns,
- require coordination, balance, strength, adaptability, and focus,
- value safety, progression, and self-awareness,
- reinforce discipline, resilience, and personal responsibility.

In essence, **the divergence lies not in what movements are performed, but why and how they are performed**.

Parkour as a movement discipline cultivates a lifelong practice of exploration, usefulness, and self-development.

Parkour as a sport channels these abilities into structured performance within a regulated competitive framework.

Both perspectives complement each other and together contribute to the evolving identity of parkour worldwide.

3.8 Ethics, Safety, and Fair Play in Competitive Parkour

Competitive parkour is distinguished not only by its technical and physical demands, but also by a uniquely strong ethical culture rooted in respect, mutual support, and collective responsibility. Although parkour has entered the domain of organised sport with formal rules, judging systems, and rankings, its community-driven origins continue to shape athlete behaviour in ways rarely seen in other competitive disciplines—especially within the broader field of gymnastics.

Ethical Foundations from the Movement Culture

From its beginnings, parkour has been built on values such as:

- respect for oneself and others,
- responsibility for personal and collective safety,
- humility and discipline,

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- sharing knowledge openly,
- encouraging peers without rivalry or hostility.

These values, inherited from *Méthode Naturelle* and reinforced throughout the early parkour community, remain visible in competitive contexts today. Even as athletes represent different clubs, countries, and cultures, the underlying ethos prioritises community over rivalry.

A Supportive Competitive Environment

One of the defining characteristics of competitive parkour is the behaviour of athletes toward one another. Unlike many traditional sports—where competitive tension can overshadow interpersonal relations—parkour competitions display an exceptional level of:

- **camaraderie**,
- **support**,
- **collective motivation**,
- **mutual celebration of success**,
- **non-hostile rivalry**.

Athletes routinely:

- cheer for one another before and during runs,
- offer technical advice and constructive feedback,
- congratulate both successful and unsuccessful attempts,
- share warm-up spaces without conflict,
- help each other manage fear, stress, and uncertainty,
- celebrate personal breakthroughs regardless of placement.

This behaviour extends across national boundaries, cultural backgrounds, and linguistic differences. Competitors often develop long-term friendships, contributing to a strong international network in which athletes see each other not only as opponents but as collaborators in the progression of the discipline.

Fair Play as a Cultural Norm, Not Just a Regulation

In parkour, **fair play** is not merely a rule-based requirement, but a norm embedded in the community's identity. Athletes demonstrate integrity not primarily because regulations demand it, but because the culture itself values **honesty in performance**, **transparency in movement completion**, and genuine **respect for judges, organisers, and peers**. Fair play also includes a clear responsibility for **safe behaviour** in warm-up and competition zones, as well as the ability to accept scores and out-

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comes **without confrontation**, even in high-pressure settings.

As sport parkour has transitioned into formalised competition, structured frameworks such as the **FIG Code of Points** have provided clearer standards and consistency. However, the strongest foundation for fair play remains the **internalised ethical standards** sustained by the parkour community—standards that guide behaviour beyond written rules and help preserve the discipline's identity as it continues to evolve.

Safety as a Shared Responsibility

Given the dynamic, high-impact, and potentially hazardous nature of parkour, **safety is a central ethical obligation**. Unlike sports where risk is primarily regulated through external structures and fixed environments, parkour places strong emphasis on the athlete's ability to manage risk through **self-regulation**, a clear understanding of personal limits, and a disciplined commitment to **progression-based decision-making**—attempting only those skills for which the necessary technical and physical prerequisites have been developed. Safe practice also depends on continuous **environmental awareness**, with athletes adapting their choices to surface quality, friction, height, spacing, and changing external conditions. Just as importantly, parkour requires a strong ethic of **protecting others** by maintaining safe training distances, using spotting appropriately during rehearsals, and sharing space and equipment responsibly.

While coaches, judges, and organisers play essential roles in establishing safe conditions, parkour culture also relies heavily on peer responsibility. Athletes often act as immediate guardians for one another, stepping in when they observe unsafe decisions, rushed progressions, or elevated psychological stress, and helping ensure that training remains controlled, respectful, and aligned with long-term development rather than short-term risk.

Cultural Diversity and Unity

Parkour competitions gather athletes from all continents, bringing together diverse traditions, languages, and training cultures. Despite this diversity—and perhaps because of it—parkour events consistently demonstrate a rare sense of unity. The shared movement language and philosophy create common ground that transcends differences.

Athletes routinely describe international competitions as:

- "meeting points of the global family,"
- "a gathering of friends who happen to compete,"
- "a shared celebration of movement, not a battle for medals."

This multicultural cohesion contributes to a respectful atmosphere where newcomers, juniors,

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and first-time competitors feel welcomed rather than intimidated.

Preserving Ethical Identity Amid Sportification

As parkour continues to evolve as a sport, maintaining the integrity and core values of its movement origins becomes increasingly important. The central challenge is to uphold **competitive fairness** without compromising creativity and individuality, to sustain the **community ethos** within formal structures, and to preserve **mutual respect** even as performance stakes and professionalism continue to rise. For this reason, ethics, safety, and fair play in parkour are not external additions to the discipline—they are **intrinsic elements** that shape its identity and distinguish its culture. Competitive formats and organisational frameworks should therefore be designed to reinforce these qualities, ensuring that sport development strengthens, rather than diminishes, the values on which parkour is built.

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4. BIOMECHANICAL AND KINESIOLOGICAL FOUNDATIONS OF PARKOUR

Note: *Information on biomechanics, injury prevention, and load progression is provided for educational purposes and to support safer training. It is not medical advice and does not replace assessment by qualified healthcare professionals.*

arkour is classified as a polystructural, coordination-dominant, open-skill sport discipline performed in highly variable and unpredictable environments. Its execution requires the integration of biomechanical efficiency, neuromuscular control, motor coordination, strength, mobility, perceptual–motor responsiveness, and psychological readiness.

This chapter provides a comprehensive scientific overview of the biomechanical and kinesiological principles that underpin safe and effective parkour practice. The analysis is based entirely on verified material: the UrbanLeap literature review, expert survey data, and established sport science frameworks relevant to motor learning, load management, and technical preparation.

The primary objective is to equip students, coaches, and practitioners with a structured understanding of how the human body produces, controls, and adapts movement within parkour's unique demands.

4.1 Principles of Human Movement in Parkour

Parkour is characterised by rapid transitions between locomotion, vaults, jumps, swings, landings, wall interactions, and complex movement combinations. These actions occur under constantly changing spatial and temporal constraints, requiring high levels of adaptability and coordination.

4.1.1 Polystructurality and the Ideal Movement Model (IMM)

Based on Matveev's (1977) classification, parkour belongs to the group of **individual conventional polystructural sports**, defined by:

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- multi-component motor structures,
- open movement tasks influenced by environmental variability,
- high demands on coordination and perceptual decision-making.

Martens (2012) describes technical skills as “specific procedures for moving the body to accomplish a task.” In parkour, these procedures are guided by:

- **biomechanical models of movement**,
- **ideal movement models (IMM)** defined by experts and practice conventions,
- **regulatory frameworks** such as the FIG Code of Points,
- **environmental affordances**, including surface height, angle, friction, spacing, materials, and obstacle configuration.

The IMM is not rigid; rather, it serves as a biomechanical reference for efficient, safe, and repeatable movement—particularly in high-stress contexts such as Speed Run or Freestyle competitions.

4.1.2 Kinematics and Dynamics of Parkour Movement

Parkour skills are built on a set of fundamental biomechanical principles that determine how efficiently and safely an athlete can move through complex environments. Central to this is the ability to manipulate the **trajectory of the centre of mass (CoM)**, shaping how the body travels over, under, or between obstacles. Movement quality also depends on the effective **production, absorption, and redirection of ground reaction forces**, especially during take-offs, landings, and rapid changes of direction. Athletes must regulate both **linear and angular momentum**, using it when beneficial for speed and continuity, and controlling it when precision, stability, or safe stopping is required. Successful execution further relies on achieving appropriate **force–time characteristics**—producing force quickly enough for explosive actions, while extending force application and deceleration time when absorbing impact. Finally, many dynamic movements in parkour depend on the efficient use of the **stretch–shortening cycle (SSC)**, where rapid pre-loading and elastic recoil enhance power output and movement economy during repeated jumps, vaults, and reactive actions.

These principles appear across all categories of movement:

- **vaults** - horizontal momentum control, rapid CoM clearance, arm–leg coordination
- **jumps and precisions** - spatial accuracy, vertical–horizontal force ratio
- **bar swings (laches)** - pendular mechanics, timing of release
- **wall techniques** - redirection of force vectors, impulse management

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- **rolls and landings** - impact dispersion through joint sequencing and momentum transition

4.1.3 Movement Variability and Adaptability

Parkour is inherently an **open-skill** discipline, meaning performance depends on the ability to respond to conditions that are continuously changing and rarely identical from one attempt to the next. In this context, **variability is not an error**, but a functional requirement of effective movement.

Expert practitioners constantly adapt technique based on surface characteristics (smooth, rough, slippery, or compliant), the height, distance, and geometry of obstacles, and constraints such as limited run-up or restricted space. They also adjust to environmental uncertainty—including weather, lighting, and noise—as well as their own psychological state, such as fear, arousal level, or confidence.

Adaptability is therefore a core component of parkour expertise. It reflects the capacity to preserve movement quality—control, efficiency, and safety—even when external conditions and internal readiness fluctuate, and when the athlete must make rapid decisions in real time.

4.2 Motor Abilities Relevant for Parkour Performance

Expert survey data from the UrbanLeap project identify the most critical motor abilities for parkour performance:

1. **Coordination** – 4.00/5.00
2. **Balance** – 3.56/5.00
3. **Strength** – 3.11/5.00

Additional components such as precision, mobility, flexibility, and speed support effective execution but are not primary determinants in early learning stages.

4.2.1 Coordination

Coordination is the central determinant of successful parkour performance. It enables:

- synchronisation of multi-joint movement patterns,
- rapid transitions between skills,

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- stable landings under variable conditions,
- continuous movement flow,
- efficient reuse of momentum.

Given parkour's polystructural nature, coordination directly underpins athletes' ability to solve complex movement problems in real time.

4.2.2 Balance

Balance—both static and dynamic—is essential for:

- precision landings,
- rail balance and bar interactions,
- stride sequences,
- cat leaps and wall engagements,
- controlled deceleration and directional change.

It is also a key protective factor against falls and injuries.

4.2.3 Strength

Although parkour is coordination-dominant, strength remains vital. Key components include:

- **relative lower-body strength** for jumps, landings, and momentum production,
- **upper-body pulling strength** for bar work and wall climbs,
- **explosive strength** for take-offs and dynamic vault entries,
- **isometric strength** for stability in landings and holds,
- **grip strength** for swings, catches, and climbing.

Strength supports but does not replace technical proficiency; therefore, training must integrate both.

4.2.4 Mobility and Flexibility

Adequate mobility in the hips, ankles, thoracic spine, and shoulders:

- enables optimal take-off and landing mechanics,
- prevents compensatory patterns,
- reduces injury risk during vaults and aerial techniques,
- supports fluid and efficient motion.

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4.2.5 Precision and Spatial Awareness

Precision reflects an athlete's ability to:

- judge distances accurately,
- control CoM during flight,
- align foot and hand placement with millimetric accuracy,
- adapt landing strategies to narrow or unstable surfaces.

Precision is directly connected to proprioception, visual-spatial processing, and refined neuromuscular control.

4.3 Biomechanics of Take-Off, Flight, and Landing

Landings represent the **highest incidence of injury** in parkour, according to the reviewed literature and expert evaluations. Proper take-off and landing mechanics are therefore central to athlete safety.

4.3.1 Impact Forces and Landing Mechanics

Parkour practitioners routinely absorb high vertical and horizontal forces. Effective landing techniques rely on:

- controlled flexion of the hip–knee–ankle chain,
- proper alignment to avoid valgus collapse,
- active arm contribution in specific landings (cat, bar catch),
- sufficient muscle stiffness to stabilise joints,
- increasing contact time to reduce peak impact force (impulse modulation),
- use of the roll to redirect momentum and dissipate energy.

Common risk factors include:

- stiff, overly vertical landings,
- premature heel contact,
- insufficient hip flexion,
- poor core stabilisation,

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- misjudged distances,
- fatigue-induced technical degradation.

4.3.2 Take-Off Mechanics

Efficient take-off requires:

- optimal joint angle alignment for force transfer,
- utilisation of the stretch–shortening cycle (SSC),
- appropriate arm swing timing,
- precise foot placement,
- effective coordination between vertical and horizontal force vectors.

Even slight deviations in take-off mechanics can significantly affect flight trajectory and landing accuracy.

4.3.3 Aerial and Bar Mechanics

Movements involving flight or bar interaction depend on:

- conservation and manipulation of angular momentum,
- timing of release in swings (laches),
- spatial orientation during rotations,
- grip engagement and safety,
- coordinated braking upon landing or catching.

Bar mechanics particularly require precise control of pendular motion.

4.4 Injury Prevention and Safe Load Progression

Research consistently identifies several recurring factors that contribute to injury risk in parkour. A major cause is **incorrect or incomplete technical mastery**, especially when athletes attempt skills without stable control of the key positions and timing. This is often compounded by **inappropriate progression**, where athletes move too quickly to higher-risk tasks before meeting the necessary prerequisites. Injuries are also strongly associated with **high-impact landings on hard surfaces**, particularly when absorption strategies (soft landing, hand-assist, or roll) are not selected appropriately.

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Fatigue further increases risk by reducing coordination, reaction time, and force absorption capacity, especially later in sessions or during repeated high-intensity efforts. Additional contributing factors include a **lack of structured warm-up**, **insufficient physical preparation** (strength, mobility, tissue tolerance), and **unsupervised or unguided practice**, where feedback, environmental management, and risk control may be missing.

4.4.1 Gradual Progression

Progression should follow the principles:

- **from known to unknown**,
- **from simple to complex**,
- **from low to high**,
- **gradual adaptation to hard surfaces**,
- **from static to dynamic**,
- **from isolated skills to combinations**.

These principles were strongly supported by expert ratings in the UrbanLeap study.

4.4.2 Proper Preparation

Warm-ups in parkour must be structured to prepare the body for high demands and variable environments. This includes restoring and reinforcing **joint mobility** to allow safe ranges of motion, followed by **neuromuscular activation** to "switch on" the key stabilising and power-producing muscles. Effective warm-ups also incorporate **balance and proprioception**, helping athletes refine foot placement, body awareness, and control before moving onto obstacles. Because parkour involves repeated elastic actions, warm-ups should support **tendon and muscle elasticity**, gradually increasing tissue readiness for fast stretch–shortening demands. Finally, they must include **progressive exposure to landing and jumping impacts**, starting with low-intensity contacts and building toward the forces and speeds expected in training, so that the body and nervous system are fully prepared before higher-risk tasks begin.

4.4.3 Methodological Precision in Teaching

Experts emphasise the importance of structured instruction in parkour, particularly in early learning stages. This includes **clear verbal instructions** that define the goal and key technical points, supported by **demonstrations** that provide a visible model of timing, body positions, and rhythm. Ef-

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fective coaching also relies on timely **corrective feedback**, helping athletes adjust errors before they become habits or safety risks. Progress is best supported through **step-by-step methodological teaching**, where tasks are built progressively and prerequisites are confirmed before increasing difficulty. A key principle is the **avoidance of premature task complexity**, as introducing high-risk variations too early increases the likelihood of poor mechanics and injury. While unguided exploration becomes valuable at later stages for creativity and adaptability, it is not sufficient as a foundation for safe and reliable skill development.

4.4.4 Load Monitoring and Overload Prevention

Key areas requiring monitoring include:

- number of jumps per session,
- landing height and impact volume,
- bar repetitions,
- plyometric intensity,
- overall fatigue.

4.5 Environmental Adaptation and Movement Variability

Parkour practice occurs in natural and urban environments that present unique biomechanical challenges.

4.5.1 Surface Characteristics and Friction

Surfaces such as concrete, grass, metal rails, wood, or rubber significantly influence:

- take-off and landing mechanics,
- grip and balance,
- friction coefficients,
- energy absorption,
- risk of slipping or instability.

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4.5.2 Spatial Configuration

Athletes must adapt movement to:

- obstacle height and spacing,
- gaps and angles,
- ledge width,
- bar placement,
- irregular or unpredictable layouts.

These factors shape movement choice, confidence, and execution.

4.5.3 Uncertainty, Creativity, and Flow

Parkour originated as a **self-organised epistemic culture** centred on exploration and creativity. Even within formal training systems, movement variability and adaptability remain essential:

- solving movement problems,
- exploring multiple solutions,
- adjusting to environmental uncertainty,
- developing flow through non-linear learning.

Creative adaptability becomes more important in advanced stages of learning.

Parkour is a biomechanically complex, coordination-dominant discipline requiring precise technical execution, progressive load management, and adaptability to variable environments.
Safe performance depends primarily on:

- mastery of landing mechanics,
- structured progression,
- appropriate physical preparation,
- effective feedback,
- awareness of environmental factors.

Coaches must integrate biomechanical principles with methodological precision to create training environments that are developmental, safe, and aligned with both the competitive structure and traditional movement culture of parkour.

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5. THE COACH AS A FACILITATOR OF THE PROCESS

Implementation Note: *The guidance in this chapter is intended to support responsible coaching practice and should be applied with consideration of participant needs, safeguarding requirements, and the ethical and safety standards of the training environment.*

Parkour coaching requires the integration of technical expertise, methodological precision, pedagogical competence, and leadership skills. Unlike traditional sports, parkour presents unique challenges related to variability of environment, open-skill demands, and a strong cultural foundation in autonomy, exploration, and peer learning. Consequently, coaches must balance safety, structure, and progression with the flexibility and creativity inherent in parkour practice. This chapter synthesises research findings, expert evaluations, and established coaching theories to outline the multifaceted role of the coach in parkour.

5.1 The Role of the Coach in Parkour

Coaches in parkour are professional practitioners whose expertise is shaped by tertiary education, specialised qualifications, and long-term practical experience. According to Lyle & Muir (2020), high-performance coaches are domain-specific experts whose authority stems from deep technical competence and proven decision-making ability. Ericsson (2018) similarly defines experts as individuals recognised by peers for reliable judgment, extensive knowledge, and years of deliberate practice.
Because each sport has unique demands, coaches must possess discipline-specific knowledge that reflects the technical, biomechanical, organisational, and regulatory frameworks of parkour. While general sport science (anatomy, physiology, training theory) contributes to foundational competence, differences in movement structure, competition systems, and environmental conditions require parkour-specific expertise. Competition rules determine the conditions under which athletes perform and how performance is evaluated, influencing training priorities, technical development, and long-term athlete preparation (Kolar et al., 2025).

The coach also plays a central managerial role. Nash and Collins (2006) describe coaches as technical advisors, educators, tacticians, and managers of the entire process—planning, organising, implementing, controlling, and evaluating training and performance outcomes. Decision-making is the core mechanism through which all coaching responsibilities are executed.
In parkour, the coach must create a training environment that is:

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- **safe** – controlling risk through structured progression and technical supervision;
- **supportive** – promoting emotional stability, confidence, and psychological readiness;
- **adaptable** – accommodating individual needs, limitations, and fear responses;
- **development-oriented** – encouraging autonomy, self-reflection, and long-term growth.

Coaches in formal settings frequently collaborate with schools, sports federations, and institutions, requiring additional organisational and communication competencies.

Knowledge Areas Essential for Effective Coaching

Expert evaluations from the UrbanLeap project highlight the most important domains of coaching knowledge:

1. Methodology of teaching parkour skills (4.00/5.00)

◊ technical models of movement
◊ progressions and regressions
◊ didactic sequencing
◊ biomechanical rationale behind skill execution

2. Very important domains (3.5–4.0)

◊ general training theory (periodization, adaptation)
◊ physical preparation (strength, mobility, conditioning)
◊ psychological preparation (motivation, fear management, confidence)
◊ pedagogical knowledge (communication, instructional strategies)
◊ safeguarding and safety standards (risk management, safe environments)

3. Moderately important (3.0–3.5)

◊ history and philosophy of parkour
◊ physiology and functional anatomy

4. Least important

◊ competition rules and systems (2.44/5.00)

This reflects the fact that much of parkour remains non-competitive and community-oriented, meaning that coaches primarily influence technical development, safety, and progression rather than competition-specific strategy.

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5.2 Motivation and Mindset Development in Students

Parkour training is inherently individualised. Each practitioner arrives with unique physical abilities, fear responses, learning backgrounds, and psychological readiness. Research (Greenberg, 2017; Wallace, 2015) shows that progression in parkour depends on the athlete's ability to gradually overcome both physical and psychological barriers.

The Role of Progression in Mindset Development

Expert evaluations indicate that **gradual exposure to increasing task complexity** (4.22/5.00) is the most effective teaching method in parkour. This structured progression:

- supports fear management,
- builds self-confidence,
- facilitates correct technique acquisition,
- reduces injury risk,
- encourages commitment and decision-making ability,
- allows practitioners to internalise movement mechanics before advancing.

Parkour inherently requires practitioners to confront uncertainty and perceived risk, as environments, surfaces, and task demands are rarely identical from one attempt to the next. Through well-structured, progressive challenges, students learn to manage these demands without becoming overwhelmed. Over time, this process supports the development of **emotional regulation**, allowing athletes to recognise fear or arousal and remain functional under pressure. It also strengthens **task-focused concentration**, helping them direct attention to the key technical cues required for safe execution. As challenges become more complex, athletes build **resilience in high-pressure situations**, learning to respond calmly to setbacks and maintain decision-making quality. Ultimately, consistent progression reinforces **trust in their own technical capacity**, as confidence becomes grounded in verified skills and reliable control rather than in impulsive risk-taking.

The Role of Verbal Instruction

The second highest-rated method is **verbal guidance and questioning** (3.22/5.00). Effective verbal instruction:

- clarifies technical cues,

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- encourages analytical thinking,
- prompts athletes to explain their movement decisions,
- strengthens cognitive involvement in the learning process.

Together, structured progression and verbal instruction form a pedagogical framework that supports both physical and psychological development, ensuring athletes progress safely while cultivating intrinsic motivation, reflective practice, and long-term autonomy.

5.3 Individualisation of Training

Parkour has historically developed in informal, self-organised environments where practitioners learn through observation, peer feedback, and trial-and-error. Gilchrist & Wheaton (2011) note that internet tutorials and peer-led sessions remain common learning pathways, especially among beginners.

Integrating Informal and Formal Learning

The absence of early formal coaching structures meant that practitioners relied heavily on self-teaching and community learning. However, self-guided video learning lacks personalised feedback, increasing risk during complex movements. With the rise of sport structures and competitive formats, interest in formal coaching has grown, particularly among newcomers seeking safe, structured progressions.

Contemporary parkour coaching must therefore:

- assess each participant's prior informal learning,
- integrate existing experiential knowledge into structured pedagogy,
- tailor progressions to individual motor abilities and psychological readiness,
- provide consistent external feedback to balance internal trial-and-error learning,
- recognise differences in fear responses, adaptability, and movement history.

Coach education programmes—such as APEX Movement or ADAPT—attempt to standardise coaching practices, though methods vary widely across organisations (Greenberg, 2017). This reflects the global diversity of parkour cultures and the importance of context-sensitive coaching.

Individualisation is therefore central to effective parkour coaching and requires ongoing assessment, observation, and dialogue between coach and athlete.

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5.4 The Coach as a Role Model and Leader

Parkour coaches must perform multiple leadership roles: technical expert, facilitator, mentor, and cultural representative. Because parkour is both a sport and a lifestyle discipline, leadership must be flexible, situational, and responsive to athlete needs.

Leadership Styles in Parkour Coaching

Chelladurai and Arnott (1985) identify three broad leadership styles:

- **Autocratic** – coach makes decisions independently
- **Democratic/Participative** – decisions made collaboratively
- **Laissez-faire/Delegative** – coach provides input but encourages athlete autonomy

Kaya (2014) provides a detailed analysis of situational leadership within the coaching context, arguing that no single leadership style is universally effective. Instead, the coach's effectiveness depends on their ability to diagnose the athlete's current level of competence, confidence, and psychological readiness, and to adjust their leadership behaviour accordingly.

According to Kaya, situational leadership encompasses four primary behavioural approaches:

1. **Telling (Directive Leadership)** – characterised by clear, specific instructions and close supervision. This style is most appropriate when athletes have low competence and require precise guidance for safety, technical accuracy, or confidence. In early stages of parkour learning—particularly when dealing with fear, new environments, or unfamiliar movement patterns—directive leadership provides structure and reduces uncertainty.
2. **Selling (Explaining and Encouraging)** – the coach still provides direction but also explains the reasoning behind decisions, ensuring that athletes understand both the "how" and the "why." This style supports motivation and buy-in, helping athletes internalise principles of progression, safety, and technical execution.
3. **Participating (Shared Decision-Making)** – the coach shifts towards collaboration, encouraging athletes to contribute to decisions about task selection, progression level, and movement variations. Kaya emphasises that this style is effective when athletes have developed moderate competence but still benefit from emotional support, reflection, and shared problem-solving—typical in intermediate parkour stages.
4. **Delegating (Autonomy-Supportive Leadership)** – responsibility for decision-making gradually transitions to the athlete. This style is suitable when athletes demonstrate high competence and psychological readiness, enabling them to self-regulate, plan their own progressions, and execute movements independently.

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Kaya argues that selecting the appropriate style depends on continuously evaluating two key dimensions:

- **athlete readiness** (physical ability, technical proficiency, psychological stability),
- **task demands** (complexity, environmental risk, novelty).

This dynamic approach ensures that coaching behaviour evolves in parallel with athlete development, preventing mismatches between leadership style and athlete needs—such as giving too much autonomy to an unprepared beginner or imposing excessive control over an experienced practitioner.

Within parkour, Kaya's model is particularly relevant because readiness levels can vary dramatically between individuals and even between tasks for the same athlete. For example, an athlete may be autonomous in bar movements but require directive coaching during height exposure or precision landings. This reinforces Kaya's core assertion: **effective coaching requires ongoing situational assessment and flexible leadership responses tailored to the moment.**

Similarly, Elderon (2020) suggests participative leadership as particularly effective for learning, problem-solving, and decision-making.

Sherman et al. (2002) and Marshall (2006) support flexible leadership, noting that high-level athletes benefit from consensual, collaborative relationships rather than rigid top-down instruction. Kolar et al. (2006) highlight that leadership style should evolve with athlete maturity—more autocratic in early developmental stages, more participative as athletes grow cognitively and emotionally.

Leadership and Athlete Development

Research indicates that **participative leadership**—where athletes are actively involved in decisions about goals, training processes, and problem-solving—supports both performance and long-term development. By sharing responsibility and inviting input, this leadership style tends to increase **athlete autonomy**, which in turn strengthens **intrinsic motivation** and commitment to training. It also improves day-to-day **communication**, creating clearer expectations and reducing misunderstandings, while simultaneously strengthening the **quality of feedback** because athletes are more engaged in reflection and more receptive to corrections. Over time, participative leadership can support **long-term career development** by encouraging self-regulation and ownership of progress (Moen et al., 2014), and it also fosters **psychological safety and trust**, making athletes more willing to ask questions, report concerns, and learn through mistakes without fear of negative judgment.

The Coach as a Cultural Role Model

Given the strong ethical foundation of parkour, the coach must also act as:

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- a model of discipline and responsibility,
- an advocate of safe and progressive practice,
- a protector of parkour values (respect, humility, community),
- a facilitator of supportive peer relationships,
- a guide in both competitive and non-competitive environments.

Parkour's dual identity—movement philosophy and competitive sport—places the coach in a unique cultural position, requiring them to preserve the discipline's ethos while guiding athletes toward safe, effective, and meaningful development.

5.5 Coaching Ethics and Athlete Welfare

Ethical coaching practice in parkour extends far beyond technical instruction. Because parkour combines high physical demands, psychological challenges, environmental variability, and an unusually strong cultural identity rooted in respect, responsibility, and community, coaches hold a central role in ensuring athlete welfare. Ethical decision-making is therefore fundamental to safe and sustainable development.

5.5.1 Duty of Care and Safe Practice

Parkour exposes athletes to elevated levels of physical stress, impact forces, and psychological pressure. Coaches must therefore uphold a clear duty of care, ensuring that all training processes align with principles of safety and developmentally appropriate progression.

Key responsibilities include:

- **risk management** through structured progressions and clear methodological steps,
- **monitoring fatigue** and adapting training accordingly,
- **identifying signs of physical or psychological overload**,
- **maintaining safe training environments**, including equipment and spatial organisation,
- **protecting athletes from unnecessary or premature exposure** to high-risk tasks.

Ethical coaching requires prioritising long-term health and development over short-term performance.

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5.5.2 Promoting Autonomy and Respect

Parkour's philosophical foundation emphasises personal responsibility, intrinsic motivation, and self-directed progression. Coaches must therefore support—not override—athlete autonomy.

Ethically aligned coaching includes:

- respecting the athlete's right to decline or postpone a task,
- avoiding coercion or pressure to perform beyond readiness,
- encouraging self-assessment and independent decision-making,
- reinforcing open communication and emotional expression,
- cultivating an atmosphere where athletes feel safe to express fear or uncertainty.

This approach reflects parkour's roots in mutual respect and community support, while aligning with research showing that autonomy enhances motivation and long-term engagement.

5.5.3 Protecting Psychological Well-Being

Fear, risk perception, and emotional regulation are inherent aspects of parkour. Coaches must therefore be sensitive to psychological responses and avoid normalising unhealthy risk-taking.

Ethical coaching practice includes:

- understanding individual fear responses,
- using progressive exposure rather than forced attempts,
- recognising anxiety, hesitation, and elevated arousal as informative (not weaknesses),
- promoting mental strategies for focus, confidence, and self-regulation,
- preventing social comparison that could compromise self-esteem or decision-making.

Psychological safety is essential for both performance quality and long-term participation.

5.5.4 Inclusivity and Social Responsibility

Parkour is widely recognised as an inclusive and community-driven discipline, and coaches have a responsibility to actively uphold these values in daily practice. This means creating learning environments that are genuinely accessible regardless of age, gender, ability, or background, while also preventing exclusion, discrimination, or elitism from developing within groups. Coaches set the standard through their own conduct, modeling respectful behaviour toward every participant and reinforcing

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expectations of respect in the training culture. In addition, they should promote cooperative training—where athletes support each other's progress and safety—rather than encouraging hostile competition that undermines trust and community.

Because parkour exists within a globally diverse culture, ethical leadership also requires strong cultural awareness and sensitivity. Coaches must recognise differences in communication styles, norms, and expectations, and ensure that inclusion and respect remain consistent principles across varied contexts and mixed groups.

5.5.5 Protecting Parkour's Cultural Integrity

The transition of parkour into a formal sport introduces structures—rules, judging, rankings—that differ from its original self-organised philosophy. Coaches serve as cultural mediators who must balance:

- the demands of competitive performance,
- the preservation of parkour's core values: humility, authenticity, discipline, usefulness, community.

Ethical leadership helps prevent the loss of identity that can occur during sportification. Coaches therefore act not only as instructors, but as guardians of the discipline's ethos.

5.5.6 Collaboration and Transparency

Effective and ethical coaching depends on transparent communication among coaches, athletes, judges, parents, and organisations. This means clearly defining expectations and roles so that everyone understands responsibilities, boundaries, and decision-making processes. It also requires providing honest feedback in a constructive manner—direct enough to be useful, but delivered without negativity or judgment. When appropriate, ethical coaching includes collaboration with medical and conditioning professionals to ensure that training decisions support health and long-term development. Transparency also involves openly sharing safety information, including risks, environmental considerations, and agreed procedures, as well as reporting unsafe behaviour or hazardous conditions when they arise. In this way, clear and consistent communication strengthens trust and accountability across the entire training process.

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Summary

Ethical coaching in parkour requires a multidimensional approach grounded in:

- safety and progressive methodology,
- athlete autonomy and psychological well-being,
- inclusive and respectful communication,
- cultural integrity and long-term athlete welfare.

The coach is therefore not only a technical expert, but also a facilitator of responsible behaviour, ethical decision-making, and a safe, supportive learning culture that reflects the unique identity of parkour as both a movement discipline and a sport.

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6. FUNDAMENTAL PARKOUR ELEMENTS

Implementation Note: *Skill descriptions and progressions are presented as structured training guidance. Progressions and safety recommendations must be adapted to the participant's level, environmental conditions, and the availability of qualified supervision.*

Basic parkour elements serve to build a solid foundation for people who are new to parkour. Although these movements are first learned in simpler conditions, all of them can be progressed and made more demanding in many ways—for example by performing them at greater height, at higher speed, by linking elements without unnecessary steps while maintaining speed, or by gradually increasing distances in jumps and drops. In addition, it is recommended to practise all elements on both sides of the body, not only on the side that feels more natural or dominant, in order to develop symmetry, better control, and long-term resilience. Once this technical base is established, acrobatic elements can also be integrated, such as frontflip, backflip, or sideflip, depending on training goals and the athlete's level of readiness and safety.

Another highly important aspect of training—especially outdoors—is that both the coach and the athlete consistently pay attention to the quality and stability of obstacles, as well as to weather-related conditions. It is not enough to assess an obstacle only visually; the athlete must also consider whether it has rained recently, whether the session takes place in the morning when rails and edges may be wet from dew even if there was no rainfall, or whether the temperature is around or below freezing, which increases the likelihood that surfaces may be icy.

For safety and injury prevention, it is essential to understand and stay aware of the environment in which training takes place, and to include that assessment in decisions about skill selection, training intensity, and progression.

All movements described in the following sections can be performed in a variety of ways. This means that the classification presented below is **accurate**, but also **general and indicative** at the same time. The same elements may legitimately be placed in more than one category.

For example, in Chapter 6.2, *Ground, Low- or High-Obstacle Movements*, only the **roll** and **stride** are listed. However, many jumping skills could also be included in that chapter, because **precision**

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jumps, cat leaps, and numerous other techniques can be performed on the ground as well as at much greater heights.

Therefore, **when reading and learning from this handbook**, it is important to keep in mind that parkour is highly diverse and adaptable. For practical reasons, the classification system is used to support the structure of the handbook; although valid, it remains flexible and may overlap across categories.

6.1 Vaults

SAFETY VAULT

Photo by: Vilim Šmic

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Movement description:

The movement is performed by having the athlete jump before the obstacle and land on top of it with one foot (as if taking the next step), but with the body slightly slanted toward the opposite hand, because that hand also supports the athlete's body immediately after the foot lands. In the next moment, both the foot and the hand are supporting the body at the same time. After that, the leg pushes off the obstacle, and immediately afterward the hand does the same, allowing the athlete to exit into another step and continue the movement.

Purpose and application:

The purpose of this movement is to clear the obstacle with minimal or medium effort. It is most commonly used for clearing lower and medium-height obstacles, as well as for descending from medium and slightly higher obstacles. This movement can also be used at higher speeds.

Methodology of Learning:

Progression 1 – Hand placement on a low obstacle

- The athlete starts on a low wall/rail and focuses only on consistent hand placement and body alignment, without speed. The goal is to build a repeatable entry position and confidence close to the obstacle.

Progression 2 – Foot placement and entry alignment

- Once the hand placement is consistent, the athlete learns to place the opposite foot slightly farther to the side, approximately in line with the hand.

Progression 3 – Leg drive and hip lift (creating clearance)

- The athlete practices pushing strongly through the take-off leg and actively lifting the hips higher to create enough space between the body and the obstacle. The focus is on generating clearance so the trailing leg can pass safely without clipping.

Progression 4 – Push sequence and step-out landing

- The athlete performs the movement with a clear push sequence: push off the obstacle first with the leg, then with the arm and landing into a controlled step-out rather than trying to "stick" immediately. This emphasizes safe continuation and rhythm.

Progression 5 – Add locomotion: from walking to running

- After the movement is technically clean from a static or slow entry, the athlete begins practicing it while increasing speed toward a faster run. As speed increases, the athlete learns to jump slightly farther away from the obstacle to account for higher momentum and to match the obstacle height, maintaining the same technical structure and clean clearance throughout.

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Assistance and Spotting

Spotting is usually not required, but if needed, the coach stands in front of the obstacle on the side of the athlete's supporting hand, ready to catch the athlete in case of slipping or hitting the obstacle. This is only necessary on slightly higher obstacles, rails, or when the movement is performed at higher speeds.

Most Common Mistakes:

- Insufficient take-off, resulting in not having enough height to cleanly pull the other leg through — the leg hangs down the wall, slowing or completely stopping the athlete after landing on the obstacle (applies to medium-height obstacles).
- Placing the leg and hand too close together, leaving insufficient space for the other leg to pass through — hitting the obstacle with the other foot and increasing the risk of falling over the obstacle.
- Jumping off the obstacle while leaving the hand on it for too long — causing the body to rotate toward the hand.
- Jumping off the obstacle with both legs — making it difficult to continue running forward quickly and fluidly.
- Pushing too high with the leg instead of pushing forward.

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LAZY VAULT

Photo by: Vilim Šmic

Movement description:

The Lazy Vault is performed by having the athlete approach the obstacle at a low to moderate speed and at an angle, so that the obstacle is closer to the hand that will be placed on it first. The movement begins with a light jump off the leg opposite to the hand that will be placed on the obstacle, while the athlete slightly leans toward that same side. From this support, the athlete swings the legs over the obstacle in a semicircular motion, starting with the leg closer to the obstacle, followed by the take-off leg. At the moment the legs pass over the obstacle, the athlete places the other hand behind the body on the obstacle, using it for additional stabilization and control. The exit is performed in a controlled manner, with a landing, a transition into another movement, or simply by continuing the movement into walking or running.

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Purpose and application:

The purpose of the Lazy Vault is to allow the athlete to clear an obstacle with minimal effort, using body positioning, rotation, and control rather than speed or explosive power. This movement is primarily used for efficient and controlled obstacle clearance when speed is not a priority.

The lazy vault is most commonly applied when the athlete approaches an obstacle at low to moderate speed and needs a simple, efficient way to clear a low to medium-height barrier without disrupting rhythm. It is also frequently used for controlled descents from medium and slightly higher obstacles, where the priority is maintaining balance and managing impact rather than generating maximum speed. Because it requires relatively low explosive effort, the lazy vault is a practical choice for conserving energy while still preserving smooth, fluent movement. In flow-oriented lines, it serves as an effective transition tool, allowing the athlete to connect movements cleanly and maintain continuity without abrupt changes in speed or direction.Due to its low-impact nature and emphasis on control, the Lazy Vault is also frequently used in learning environments and as a preparatory movement for more dynamic vaults.

Methodology of Learning:

Progression 1:

- The athlete practises placing the supporting hand on the obstacle while stepping or lightly hopping alongside it, without attempting to clear the obstacle.
- The athlete learns to perform a small jump from the leg opposite to the supporting hand, focusing on leaning the body toward the supporting side and on swinging the leg at the same time.

Progression 2:

- The athlete practises swinging the lead leg (the leg closer to the obstacle) in a semicircular motion over the obstacle, while the take-off leg follows, and sits on top of the obstacle.

Progression 3:

- The athlete learns to place the second hand on the obstacle behind the body to provide additional support and control, but now without sitting on top of the obstacle.

Progression 4:

- The athlete practises controlled exits from the movement, first into a stop or walk, then into light running or a transition into another movement.

Progression 5:

- Progressively, the athlete increases obstacle height and approach speed while maintaining control and fluidity.

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Assistance and Spotting

Spotting is usually not required, but if needed, the coach stands in front of the obstacle on the side of the athlete's supporting hand, ready to catch the athlete in case of slipping or hitting the obstacle. This is only necessary on slightly higher obstacles, rails, or when the movement is performed at higher speeds.

Most Common Mistakes:

- Insufficient take-off causing the hips or glutes to collide with the obstacle.
- Excessive knee flexion resulting in the heel catching on the obstacle.
- Failure to place the second hand on the obstacle for support.
- Insufficient hip rotation during obstacle clearance.

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THIEF VAULT

Side view:

Photo by: Vilim Šmic

Front view:

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Photo by: Vilim Šmic

Movement description:

The movement is performed by having the athlete jump before the obstacle and slightly lean toward the side of the hand that will be used for support. The support hand is used to swing the hips and legs in a semicircular motion in order to clear the obstacle. At the moment of passing over, the athlete places the other hand behind their body onto the obstacle, using it to push off and control the exit from the movement.

Purpose and application:

The purpose of this movement is to clear the obstacle lightly, almost effortlessly and without using speed, almost like a lazy vault.

It is most commonly used for clearing lower and medium-height obstacles, as well as for descending from medium and slightly higher obstacles.

Methodology of Learning:

Progression 1:

- Progressively, from a lower to a higher obstacle, the athlete learns to jump onto the obstacle into a safety position.

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Progression 2:

- When the foot lands on the obstacle, the athlete makes a small hop to gain a bit of height, rotates the hips away from the supporting hand, and places the other hand during the descent.

Progression 3:

- Once the athlete can perform this easily with minimal foot contact and without the hop, he/she is ready to push more with the supporting hand, avoid touching the wall with the foot, and complete the full movement by placing the second hand and pushing away from the obstacle.

Assistance and Spotting

Spotting is usually not required, but if needed, the coach stands behind the obstacle on the side of the athlete's supporting hand, keeping their hand at mid-back height to ensure the athlete does not fall off the obstacle if they get caught on it.

Most Common Mistakes:

- Insufficient take-off leading to the knee hitting the obstacle.
- Insufficient take-off causing the hips or glutes to collide with the obstacle.
- Excessive knee flexion resulting in the heel catching on the obstacle.
- Failure to place the second hand on the obstacle for support.
- Insufficient hip rotation during obstacle clearance.

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SPEED VAULT

Photo by: Vilim Šmic

Movement description:

The athlete runs toward the obstacle at a higher speed. When reaching one step before the obstacle, the athlete jumps off one leg, leans toward the hand that will be used for support on the obstacle, and lifts the legs over the wall. While on the obstacle, the body is tilted almost parallel to it, the take-off leg threads underneath the swinging leg, and the athlete pushes strongly off the obstacle with the supporting hand. After that, the push from the hand helps the body return to an upright position, the take-off leg makes first contact with the ground, and the swinging leg comes forward into the next step, allowing the athlete to continue running without losing speed.

Purpose and application:

The purpose of the speed vault is to clear an obstacle with minimal loss of horizontal speed by

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using efficient hand support and a compact leg pathway that preserves rhythm and flow.

The speed vault is most commonly used when the athlete approaches at moderate to high speed, the obstacle is low to medium height, maintaining a fast run-out is a priority—especially in speed courses—and the aim is to link smoothly into the next action (such as a sprint, step-out, precision, or another obstacle) without a major or any change in direction.

Methodology of Learning:

Progression 1: Hand placement and line (no clearance)

- The athlete practises approaching the obstacle and jumping in a slightely more slanted safety vault
- From a slow approach, the athlete performs a small take-off and practises bringing the legs together to the side of the obstacle while the hands support and guide the body over.

Progression 2: Full speed vault pathway (low obstacle, controlled speed)

- The athlete clears the obstacle with a compact body line and minimal vertical lift, focusing on short hand contact time and a clean, stable landing.

Progression 3: Exit control

- The athlete practises controlled exits first into a walk, then into a step-out, and then into light running to preserve continuity.

Progression 4: Increase speed, then height

- The athlete gradually increases approach speed toward fast running while maintaining technique; once consistent, the athlete increases obstacle height while keeping clearance efficient and controlled.

Assistance and Spotting

Spotting is usually not required. If it is needed, the coach stands on the landing side in case the athlete, due to high speed, catches on the obstacle and falls over it.

Most Common Mistakes:

- Not jumping high enough and hitting the obstacle with the take-off leg.
- Not pushing strongly enough with the supporting hand, resulting in loss of speed and a potential fall onto the back.
- Leaving the supporting hand on the wall for too long causing the body to rotate toward the side of the supporting hand and resulting in loss of speed.

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KONG VAULT

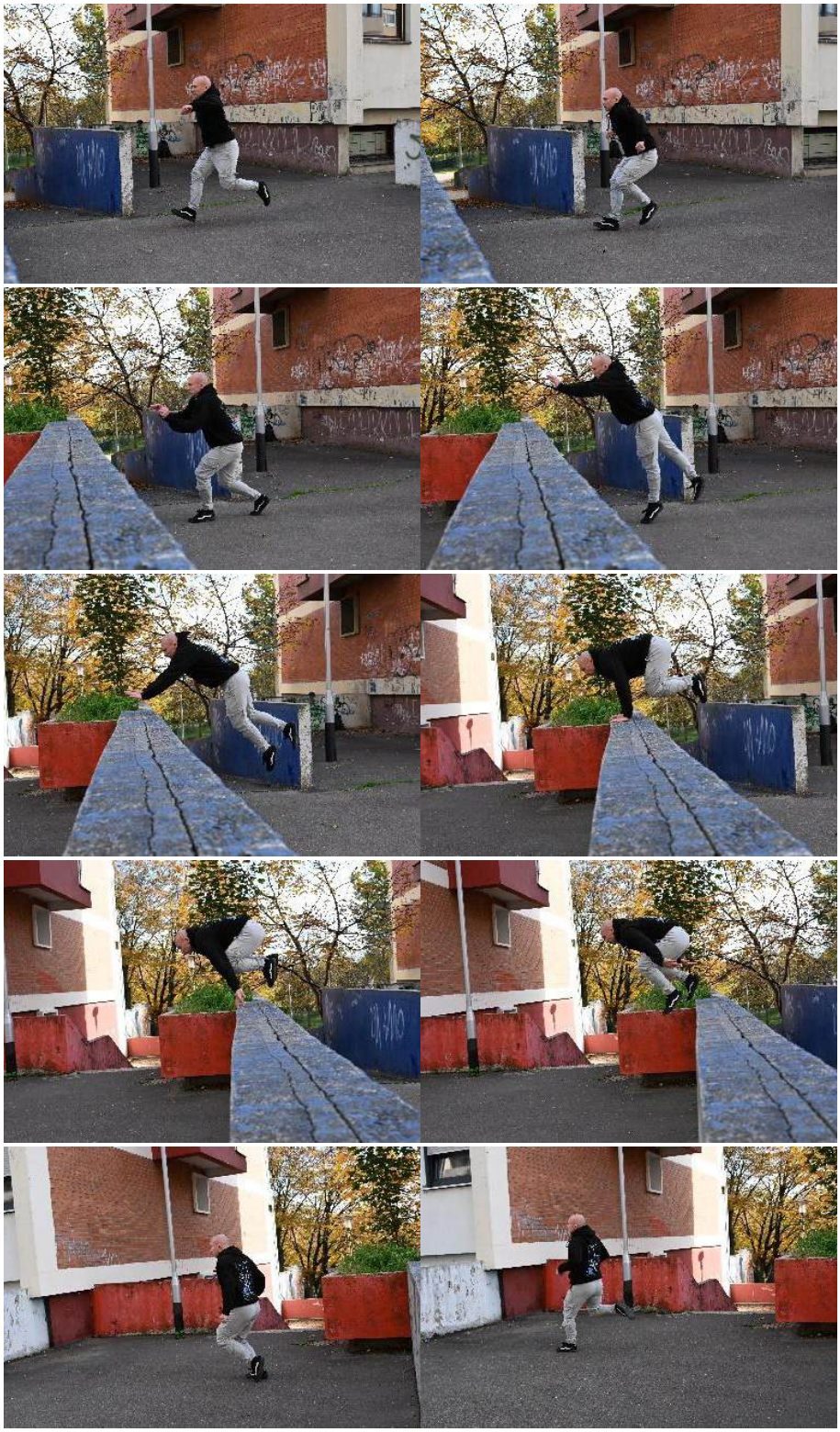

Photo by: Vilim Šmic

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Movement description:

Kong Vault is performed by having the athlete run toward the obstacle at a moderate to high speed. When the athlete is about two stride lengths away from the obstacle, the final step is extended into a small hop into a split step, lowering the hips below the height of the obstacle and entering a powerful two-footed take-off that projects the body forward and upward.

The body remains sufficiently inclined to create an optimal path of motion for generating adequate distance and height, as well as for pulling the legs through.

After the take-off, the athlete lengthens the body in the air and places the hands on the obstacle at approximately shoulder width. The hands are positioned firmly, with the fingers pointing forward to allow a strong push.

After the hands make contact and the push is initiated, the leg-drawing phase begins: the athlete powerfully activates the hip flexors and abdominal muscles to pull the knees toward the chest while continuing to project the body forward.

When the hips pass above the obstacle, the hands have completed the push and pull action, propelling the body forward and creating space for the legs to pass completely over the obstacle without contact.

After the legs clear the obstacle, the athlete extends them forward in preparation for landing, absorbing the impact with controlled eccentric action on the feet while maintaining a stable trunk position.

If performed correctly, the athlete can immediately continue moving forward, transitioning into running or into the next movement without losing speed.

Purpose and application:

The purpose of the Kong Vault is to allow the athlete to clear an obstacle efficiently by converting forward momentum into a low, long, and controlled trajectory that enables the hips and legs to pass safely over the obstacle. It is typically used when the obstacle is too wide, too high, or positioned in a way that makes stepping onto it or landing on it inefficient or unsafe. In addition, the Kong Vault helps the athlete maintain or even increase forward speed while clearing the obstacle, transition smoothly into the next movement (such as running, jumping, or a precision landing), and cover a greater hori-

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zontal distance than is possible with a standard vault. By bringing the knees high, it also creates a safer pathway for the legs and reduces the risk of the shins or feet striking the obstacle, while simultaneously preparing the athlete for advanced variations such as Kong to Precision, Double Kong, or diving-style Kongs.

Methodology of Learning:

Progression 1 (on the ground):

- Hand-to-foot jumps.
- Hand-to-foot jumps on the ground (a line drawn on the ground can also be used), now with sufficient hand push so that the foot landing occurs at the same spot where the hands were placed.
- Once this exercise is mastered, a stronger push with the hands is applied so that the foot landing occurs in front of the point where the hands were placed during the push-off.

Progression 2 (low obstacle):

- The athlete pushes with the hands against the obstacle and, through a small jump, lifts the hips above shoulder level.
- The athlete then repeats the exercise, but now, after the take-off and hip lift, performs a strong push with the hands so that the hands leave the obstacle and the entire body enters the flight phase, with the landing again occurring on the ground in front of the obstacle.
- Once the athlete develops a sense of a sufficiently strong hand push, the next phase follows, in which the athlete pulls the legs onto the obstacle after the push-off and steps onto it.
- The next phase focuses on pushing forward, not only upward, onto the obstacle. This is achieved by initially pushing upward, then leaning the chest over the obstacle and pulling/pushing forward, placing one foot on the top of the obstacle as close as possible to the side being crossed, entering into a step.
- After that, from light movement and with sufficient force and all previously learned elements, the athlete clears the obstacle.

Progression 3 (take-off):

- The athlete learns to enter a split step from a longer final step, lowering the hips in a timely manner below the height of the obstacle.
- The athlete learns correct arm action — during the extended step or small hop into the split step, the arms are pulled backward, and at the moment of take-off from the split step, the arms are driven forward from behind directly onto the top of the obstacle for the push and pull phase.

Progression 4 (medium high obstacle):

- Using all previously acquired skills, the athlete adapts the run-up, take-off, hand push, and

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overall execution to the height of the obstacle, gradually increasing the approach speed for successful performance of the technique.

Assistance and Spotting

Spotting is usually not required; however, if needed, the coach stands on the landing side beyond the obstacle, ready to assist the athlete in case of slipping or contacting the obstacle with the knees or feet. This is only necessary on slightly higher obstacles, rails, or when the movement is performed at higher speeds.

Most Common Mistakes:

- Insufficient leg take-off – the athlete does not generate enough height and/or distance for safe clearance of the obstacle.
- Insufficient push with the hands – the body does not receive adequate forward and upward projection, and after clearing the obstacle the body falls forward because there is not enough hand push to re-align the body to an upright position, increasing the risk of loss of balance or falling.
- Incorrect hand placement (too wide, too narrow, or too far forward) – reduces stability and the effectiveness of the push.
- Insufficient hip lift – the legs do not have enough space to pass safely over the obstacle.
- Late or insufficient knee tuck – increases the risk of hitting the obstacle with the shins or feet.
- Body too upright during the flight phase – results in a high and short trajectory instead of an efficient long and low one.
- Excessively long hand contact with the obstacle – slows the movement and disrupts fluidity.

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REVERSE VAULT

Photo by: Miroslav Pečatnik

Movement description

The Reverse Vault is performed by having the athlete approach the obstacle at a low to moderate speed and initiate the movement by turning the body so that the back faces the obstacle during

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clearance. The athlete jumps before the obstacle and places one hand on it for support while the body rotates backward relative to the direction of travel.

As the hand makes contact, the hips and legs are lifted and guided over the obstacle in a reverse, semicircular path. The legs pass over the obstacle while the torso remains controlled and slightly leaned to the supporting hand. The supporting hand provides balance, control and push at the very end of the move for exit.

The exit is completed by landing on the opposite side of the obstacle, facing the original direction of approach or transitioning smoothly into another movement, depending on the context and intent.

Purpose and application:

The purpose of the reverse vault is to allow the athlete to clear an obstacle while simultaneously changing body orientation and direction of movement, relying on rotation and control rather than speed or explosive power. It is most commonly applied when approaching obstacles at low to moderate speed, navigating tight or constrained environments, and when a direction change is needed as part of clearing the obstacle. Because it can be performed with minimal energy expenditure, the reverse vault also supports smooth transitions between movements and helps maintain flow without abrupt changes in rhythm. In addition, it is frequently used to add variety, improve spatial awareness, and enrich movement sequences through controlled rotation. Due to its rotational nature and relatively low-impact characteristics, the reverse vault is also valuable for developing coordination, body awareness, and overall movement control.

Methodology of Learning:

Progression 1:

- The athlete approaches the obstacle at low speed and practises body rotation next to it without attempting full clearance.
- The athlete practises placing one hand on the obstacle while rotating the torso backward, keeping the movement slow and controlled while sitting.

Progression 2:

- The athlete learns to jump lightly before the obstacle and guide the hips upward while maintaining balance on the supporting hand.

Progression 3:

- The athlete practises swinging the legs over the obstacle in a reverse semicircular motion,

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initially on very low obstacles.

Progression 5:

- The athlete learns to control the exit by landing softly and maintaining balance after clearance.

Progression 6:

- Progressively, the height of the obstacle and approach speed are increased while maintaining smooth rotation and control.

Assistance and Spotting

Spotting is usually not required when the Reverse Vault is practised on low obstacles and at low speed.

If assistance is needed, the coach stands on the landing side of the obstacle, ready to support the athlete at the upper back in case of loss of balance during rotation or landing. Spotting becomes more relevant when the obstacle height increases or when the movement is performed in combination with directional changes.

Most Common Mistakes:

- Approaching the obstacle with excessive speed, reducing control during rotation.
- Insufficient body rotation, resulting in awkward clearance or loss of balance.
- Insufficient jump forward resulting with falling on top of the obstacle instead of clearing it.
- Incorrect hand placement, limiting stability and control.
- Lifting the legs too late, causing contact with the obstacle.
- Leaning too far backward, leading to unstable landings.
- Rushing the exit instead of completing the rotation and landing under control.

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DASH VAULT

Photo by: Vilim Šmic

Movement description:

The movement is performed by having the athlete run at a moderate or higher speed toward an obstacle that is not too wide and is moderately high (the medium height of the obstacle is individual and determined by how high the athlete can jump). The athlete jumps higher than the height of the obstacle before reaching it, allowing momentum to carry them over. When the athlete is above the obstacle, he/she place their hands underneath on the obstacle and push away to exit into running.

Purpose and application:

The purpose of the dash vault is to allow the athlete to clear an obstacle without contacting it with the legs, by lifting the legs forward and passing them over the obstacle before the hands provide the final support and push-off. It is commonly applied when the obstacle height and width allow a

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forward leg swing over the top, and when the athlete wants to maintain flow and exit efficiently—often linking directly into running or the next movement without stopping.

Methodology of Learning:

Progression 1:

- Testing whether the athlete can jump on top of the obstacle.

Progression 2:

- Jumping onto the obstacle into a squat position and getting off straight forward - legs first, then by placing both hands on the obstacle to push away from it.

Progression 3:

- From a small run-up, jumping off one leg into a step on top of the obstacle and gently pushing forward off the obstacle, immediately placing both hands next to the body on the obstacle and exiting into running.

Progression 4:

- Performing the full movement over the obstacle.

Assistance and Spotting

Spotting is usually not required. If the athlete can jump high enough to place his/her legs on top of the obstacle or over it, then they can perform a Dash Vault. In some cases, the coach may stand on the take-off side to ensure the athlete does not fall back, or on the landing side if the athlete can jump just barely high enough, to prevent him/her falling headfirst over the obstacle if they hit the top of it with the upper foot or toes.

Most Common Mistakes:

- Not jumping high enough — hitting the obstacle with the toes or upper part of the foot while going over it.
- Jumping too much on lower obstacles and landing heavily on top of them with the arms due to gravity.
- Leaning too far forward when going over the obstacle — resulting in incorrect hand placement and excessive stress on the shoulders, or being unable to place the hands on the obstacle at all.

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KASH VAULT

Photo by: Luka Pokupec

Movement description:

The athlete approaches the obstacle at a moderate running speed and, one step or slightly less before reaching it which depends on the height of the obstacle and running speed, jumps into a Kong toward the obstacle. When the hands make contact with the obstacle and the pushing–pulling phase of the Kong begins, the athlete does not pull but only pushes — directing the push more upward than forward in order to create enough space between the body and the obstacle to thread the legs through to the front. Once the legs are brought through, the hands are placed directly underneath on the obstacle, as in the second phase of a Dash Vault, and the athlete pushes forward to transition back into running.

Purpose and application:

The purpose of the Kash Vault is to be used in situations where the athlete does not have enough

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speed, does not have a sufficiently strong push through the hands on the obstacle to perform a safe Kong over it, or when the space after the exit is limited, making it difficult or impossible to execute a Kong efficiently. In these cases, the Kash Vault provides a more controlled option for clearing the obstacle while adapting to reduced momentum, reduced hand push capacity, or restricted landing and run-out space.

Methodology of Learning:

- The athlete must have a properly learned Kong Vault and must know the Dash Vault.

Progression 1:

- When entering the obstacle, the athlete pushes upward from the Kong, threads one leg through, steps onto the other, and descends with the hands placed on the obstacle.

Progression 2:

- The athlete pushes upward from the Kong and threads both legs underneath into a seated position on the obstacle, with the hands placed on the obstacle beside the body. This is best practised on a softer obstacle, as on a hard surface (e.g., a wall) it can be risky if the hands do not absorb the impact properly.

Progression 3:

- The athlete performs the entire movement without touching the obstacle with the body—only with the hands at the entry and the exit—which constitutes the full Kash Vault.

Assistance and Spotting

Spotting is usually done by the coach standing on the landing side, ready to catch the athlete if he or she falls over by clipping the obstacle with the feet, or to push the athlete's lower back on the exit to prevent them from hitting the edge of the obstacle with os coccygis (also known as tailbone) or to prevent him/her from scraping the lower back against the obstacle.

Most Common Mistakes:

- Insufficient jump.
- Incorrect hand placement - the push is not applied through the entire palm
- Insufficient push with the hands in the beginning.
- Catching the feet while threading them through.
- After completing the Kong, insufficient pushing with the hands off of the obstacle, resulting in hitting or scraping against the obstacle during the exit.

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DIVE KONG

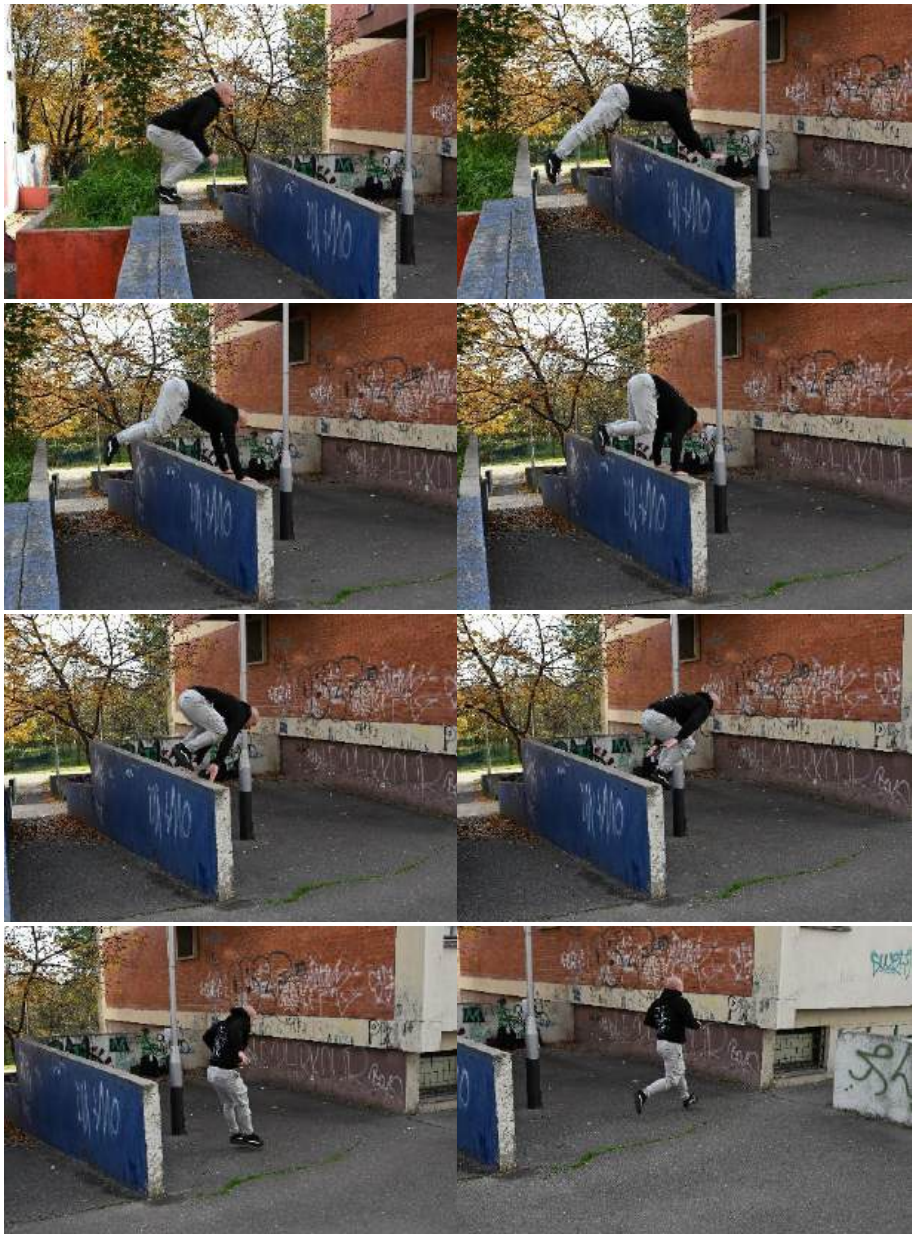

Photo by: Vilim Šmic

Movement description

A dive kong is a diving variation of the kong vault in which the athlete commits to a longer flight phase before hand contact, then converts that forward momentum into a powerful hand support and a compact knee tuck to pass the legs safely through. The athlete approaches with controlled speed, takes off earlier and farther from the obstacle than in a standard kong, and projects the body forward

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on a low, long trajectory. The hands contact the obstacle after the dive, the shoulders stay active, and the trunk remains braced so the athlete can absorb the load, quickly bring the knees high toward the chest, and thread the legs through without clipping. The movement finishes with a clean push-off from the hands and an efficient run-out or link into the next action.

A dive kong also has a variation performed from obstacle to obstacle, where the athlete takes off from one obstacle and reaches the next with a dive entry before the hand contact and tuck-through. The two obstacles can be at the same height or at different heights, including transfers from a higher to a lower obstacle or from a lower to a higher obstacle, which changes the required trajectory and timing of the hand contact and exit.

Purpose and application

The purpose of the dive kong is to clear an obstacle while covering greater horizontal distance and maintaining speed, using an extended entry flight to bridge a gap or reach the obstacle more efficiently than a standard kong. It is commonly applied when the take-off point is farther from the obstacle, when the obstacle setup rewards a longer trajectory, or when the athlete wants to preserve flow and momentum into a fast continuation. It also serves as a stepping stone toward more advanced kong variations that require confident flight, timing, and high-quality hand absorption.

Methodology of Learning – Progressions

Progression 1:

- Solid kong vault technique (active shoulders, clean knee tuck, safe push-off) as a prerequisite.

Progression 2:

- “Long kong” drills: slightly increase take-off distance while keeping hand contact controlled.

Progression 3:

- Dive entry to hands on a low, (maybe even soft setup): practise projecting forward and landing hands quietly with active scapulae.

Progression 4:

- Add the full knee-tuck thread-through after the dive entry, focusing on clearance and timing.

Progression 5:

- Increase approach speed and take-off distance gradually (one variable at a time), maintaining a low, long trajectory.

Progression 6:

- Integrate into lines: run → dive kong → run-out / precision / next vault.

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Assistance and spotting

Assistance is usually minimal; safety is mainly managed through setup: start low and ensure a clear landing zone. A coach can cue take-off distance (“earlier”), trajectory (“forward, not up”), and shoulder engagement on hand contact.

Most common mistakes

- Taking off too close to the obstacle - turns into a standard kong, poor flight, heavy hand contact.
- “Diving” without control - over-commitment, loss of line, unsafe landing.
- Passive shoulders on hand contact - shock load, slipping, unstable push-off.
- Knees not tucked high enough - clipping shins/feet on the obstacle.
- Trajectory too high (“up” instead of “through”) - loss of speed and inefficient exit.

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DOUBLE KONG

Photo by: Luka Pokupec

Movement description:

This movement is performed by having the athlete, after a run-up, land in a short step or split step, lower the hips below the level of the obstacle, and jump diagonally forward and upward while simultaneously pushing with the hands against the obstacle to gain height. The entry is the same as when performing a Kong to Precision jump. At the moment the athlete pushes with the hands and enters the flight phase, the body extends in the air by stretching the legs upward and reaching the arms forward toward the next obstacle on which the hands will be placed. At the moment of hand contact with the obstacle, the athlete pushes strongly into it, allowing that force to lift the upper body and create space for pulling the legs through into the landing on the ground and continuing the movement.

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Purpose and application:

The purpose of the double kong is to allow the athlete to quickly and efficiently cross a moderately large to large distance between two obstacles (or along one long obstacle) without touching the ground. It is most commonly applied in situations where the obstacle height makes it inefficient to jump onto it and then link a second jump to reach the next obstacle. Instead, the double kong provides a continuous, low and forward trajectory that maintains momentum across the gap and supports a fast, uninterrupted continuation into the next movement.

Progression 1:

- On an elevated obstacle (e.g., a square-shaped block), the athlete enters as if performing a Kong to Precision. After the jump and hand push-off, the athlete arrives on all fours on top of the obstacle.

Progression 2:

- Once the athlete understands how to tilt the body so the head is down, he/she learns that the next contact will again be with the hands, followed by the feet coming onto the top surface after the hands.

Progression 3:

- With a light forward run-up, the athlete repeats the same action, but now aims to land with the hands as close as possible to the next edge of the obstacle.

Progression 4:

- With a forward run-up, after placing the hands on the rear part of the obstacle, the athlete pushes off with the hands, places the feet where the hands were, and performs a drop to the ground.

Progression 5:

- The athlete performs the entire movement, but if necessary, after the second hand push-off, pulls the body to the side into a landing on the ground.

Progression 6:

- Once the athlete overcomes fear, he/she is ready to perform the movement in full.

Progression 7:

- After mastering all previous steps, the athlete performs a double kong between two obstacles with empty space in between, gradually increasing the distance between the obstacles (e.g., wall to wall as in the example).

Assistance and Spotting

Assistance and spotting are performed on the side of the second obstacle in case the athlete does not have enough speed or height and therefore either potentially collides with the obstacle or

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catches on the top edge of the second obstacle and falls over it toward the head.

Most Common Mistakes:

- insufficient running speed when approaching the first obstacle relative to the distance that needs to be covered to reach the second.
- Insufficient take-off power
- Insufficient push-off and with the hands from the first obstacle.
- Lack of body extension during the flight phase.
- The body is not tilted enough during the flight phase — specifically, the hips are not above head height, which most likely leads to the feet catching on the top of the second obstacle after the hand push-off due to insufficient space between the body and the obstacle for the legs to pass through.

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6.2 Ground and Low or High-Obstacle Movements

STRIDE

Photo by: Luka Pokupec

Movement description:

The stride technique is performed as a running pattern made up of large, rhythmical steps that link consecutive take-offs from one leg to the other. Each step functions as a controlled, jump-like action: the athlete lands on one foot, immediately absorbs and re-stiffens, and then takes off into the next stride on the opposite leg. It is most commonly executed on top of obstacles (walls, blocks, platforms, rails with sufficient width) in order to travel forward without touching the ground, but it can also be

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performed entirely on the ground or as a mixed sequence combining ground strides and strides on obstacles. The key technical feature is maintaining a consistent line and timing so that every contact is stable, repeatable, and positioned to support the next take-off.

Purpose and application:

The purpose of the stride technique is to cover distance at near running speed across obstacles without ground contact, using precise foot placement to ensure a high-quality take-off in each linked jump. It develops the athlete's ability to maintain rhythm, manage impact on single-leg landings, and keep forward momentum while consistently hitting narrow or limited landing zones. In application, the stride technique is used when an athlete must traverse a series of separated surfaces efficiently—maintaining flow and speed—while keeping contacts accurate enough to avoid slipping, over-reaching, or losing the ability to continue the next stride cleanly.

Methodology of Learning:

Progression 1:

- Learning the technique of high skipping.

Progression 2:

- Learning the technique of single-leg to single-leg jumps on the ground.

Progression 3:

- Learning precise foot placement while performing single-leg to single-leg jumps on the ground.

Progression 4:

- Single-leg to single-leg jumps across two obstacles.

Progression 5:

- Gradually adding more obstacles—first larger surfaces, then smaller ones—and increasing distances depending on the athlete's age and power.

Assistance and Spotting

Assistance is usually not required until the movement is performed on very small surfaces or at height. At that point, the coach must assess which obstacle presents a potential risk and position themselves there, ready to catch the athlete if they step incorrectly or if they jump too short or too far.

Most Common Mistakes:

- Imprecise foot placement if on a small surface like on the example (landing on a heel - slip-

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ping, falling, or inability to generate enough power for good take-off).

- Take-off is too weak, leaving the athlete unable to continue into the next jump on the following obstacle.
- Take-off is too strong, preventing the athlete from fully utilising the take-off from the next obstacle.
- Improper arm mechanics while performing the jumps.

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ROLL

Photo by: Vilim Šmic

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Movement description:

The Parkour Roll is performed as a controlled diagonal roll over the shoulder and across the back, designed to safely dissipate landing forces and protect the joints and spine. The movement begins immediately upon ground contact after a drop or jump.

As the athlete lands, the feet make contact first, followed by controlled knee and hip flexion to absorb the initial impact, but not more than 90 degrees. After that, the body lowers further without bending the knees over 90 degrees by bringing one shoulder forward while the head is turned to the opposite side, preventing direct contact of the head or spine with the ground. The roll continues diagonally across the upper back, from the back side of one shoulder toward the opposite hip, allowing the force of the landing to be spread over a larger surface and longer time. Throughout the roll, the spine remains rounded, the core engaged, and the limbs close to the body to maintain control and continuity of movement. The movement finishes with the athlete returning to a standing or moving position, allowing immediate continuation into running, jumping, or another technique without interruption.

If performed correctly, the Parkour Roll minimizes peak impact forces, protects the musculoskeletal system, and preserves forward momentum.

Purpose and application:

The purpose of the parkour roll is to safely absorb and dissipate impact forces generated during landings from jumps or drops, reducing stress on the joints, spine, and connective tissues. By increasing the time over which deceleration occurs and spreading the load across a larger surface area of the body, the roll helps minimize peak forces and lowers the risk of injury. It is most commonly applied when landing from drops or jumps of increased height, when receiving landings from higher-speed movements such as vaults or speed techniques, and whenever the athlete wants to maintain forward momentum rather than stopping abruptly. The parkour roll is also a key tool for building safe movement habits and supporting long-term joint health, and it is frequently used to transition smoothly from aerial phases or acrobatic elements into continued movement.

Methodology of Learning:

Progression 1:

- Learn basic forward rolling on the ground, focusing on a rounded spine and a diagonal pathway across the back.

Progression 2:

- Practise the shoulder entry position, bringing one shoulder forward while turning the head

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to the opposite side.

Progression 3:

- Learn to keep the chin tucked and avoid direct contact of the head or spine with the ground.

Progression 4:

- Practise rolls from a low squat position to simulate landing mechanics.

Progression 5:

- Progress to rolls after small jumps, focusing on a smooth transition from foot contact into the roll.

Progression 6:

- Gradually increase drop height and approach speed as control and confidence improve.

Progression 7:

- Integrate the roll into combinations, linking it with jumps, vaults, and running.

Assistance and Spotting

Spotting is usually not required when learning the Parkour Roll on the ground or from low heights.

If assistance is needed, the coach may guide the athlete through the diagonal rolling pathway by supporting the shoulder and hip to reinforce correct direction and body alignment.

Most Common Mistakes:

- Rolling straight over the spine instead of diagonally across the shoulder and back.
- Allowing the head or neck to contact the ground due to incorrect head positioning.
- Insufficient knee and hip flexion before entering the roll, resulting in high impact forces.
- Stiff or extended body position during the roll, reducing force dissipation.
- Losing continuity of movement and stopping after the roll instead of transitioning smoothly.
- Initiating the roll too late after landing, causing excessive stress on the joints.

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6.3 Jumps & Landings

PRECISION JUMP

Photo by: Vilim Šmic

Movement description:

The movement is performed by having the athlete jump from one spot to another from a standing position (or from a run-up), using explosive leg power combined with an arm swing. In the air, while the knees are being pulled up, the arms are pulled back, and at the moment of contact with the landing spot the hands are pushed forward for balance. The landing must be executed on the balls of the feet, and the knees must not bend below 90 degrees.

Purpose and application:

The purpose of the precision jump is to enable the athlete to land and stabilize on small surfaces

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(smaller walls, rails, bars, edges, and similar targets) with a high level of control, so that they can stop safely, change direction, or continue moving in any direction that is wanted or required. In application, the precision jump is used whenever accurate foot placement and balanced landing are essential—whether the goal is to "stick" the landing, absorb force quietly, or immediately transition into the next movement.

Methodology of Learning:

Progression 1:

- Jump onto lines drawn on the ground, imagining a small elevated surface, and try to stop and balance after landing without stepping forward or backward.

Progression 2:

- Progress to very low obstacles of varying widths.

Progression 3:

- Add height to the jumps — no more than one meter off the ground.

Progression 4:

- Add distance without increasing height.

Progression 5:

- Progressively add both height and distance as the athlete's power and control improve.

Progression 6:

- Add walking or running entries to develop the running precision jump.

Assistance and Spotting

Spotting is usually not required until the distance or height becomes challenging for the athlete. The coach may position themselves in front, behind, on the obstacle, or even below the obstacle the athlete is jumping to, depending on the type of obstacle, its surface, and their knowledge of the athlete (for example, whether the athlete tends to overjump or underjump certain distances).

Most Common Mistakes:

- Not lifting the knees high enough, resulting in insufficient time to adjust the feet for landing.
- Landing at too shallow an angle, slipping forward off the surface, and falling backward.
- Overjumping or underjumping — being unable to stay on the obstacle.
- Landing on the tip of the shoes, immediately slipping down and hitting the wall with the tibia (shins).
- Landing with the calf too relaxed, causing excessive dorsiflexion of the foot and resulting in pain or potential injury

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PRECISION JUMP 360

Photo by: Luka Pokupec

Movement description:

The athlete jumps from a standing position into a long jump onto the next obstacle, initiating the rotation at take-off by swinging the arms diagonally upward to the side and into the air, accompanied by the head turning in the same direction. After take-off, the arms are pulled toward the body and the knees are lifted. The head completes the rotation by spotting the landing area, and upon finishing the rotation, the legs extend toward the landing spot while the arms move forward to provide balance on landing.

Purpose and application:

The purpose of the 360 precision jump is to develop the athlete's ability to balance power, movement control, and precision while performing a full rotation in the air and still landing accurately on a

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small target. It is used in freestyle, some playeful movement when the athlete is simply training control and precision with rotation in the air.

Methodology of Learning:

Progression 1:

- The athlete learns the correct arm swing needed to generate rotation by jumping into the air and performing a 180° turn.

Progression 2:

- The athlete develops a stronger arm swing combined with timely pulling of the arms toward the body to achieve greater rotation.

Progression 3:

- The athlete learns, in addition to all the above, to jump forward while maintaining control upon landing.

Progression 4:

- The jump distance is gradually increased.

Progression 5:

- Once all components are mastered, the athlete jumps from the ground onto an obstacle, and then from obstacle to obstacle.

Assistance and Spotting

Spotting is not required when the movement is performed on the ground. It becomes important once the athlete begins performing it on obstacles. The coach stands next to the landing spot, ready to catch the athlete if he or she misses the landing or loses balance.

Most Common Mistakes:

- Insufficient take-off power.
- Insufficient arm swing.
- Lack of rotation.
- Loss of balance after landing — excessive rotation.
- Incorrect body lean during take-off and entry into rotation.
- Head turning too slowly — the athlete does not manage to spot the landing area in time.

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SPLAT

Photo by: Miroslav Pečatnik

Movement description

This movement is performed by jumping onto the vertical side of a wall, just like jumping a precision jump with the feet being the first point of contact absorbing the impact and hands being second, also absorbing part of the energy if needed. After that, body slides against the wall into a drop.

Purpose and application:

The purpose of this movement is to enable the athlete to descend in high speed from a greater height than usual, as the wall helps absorb part of the impact force. By sliding down the wall, the athlete is able to decelerate the movement, making the landing less demanding than dropping directly to the ground.

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Methodology of Learning:

Progression 1:

- The athlete learns to jump from the ground with both feet simultaneously onto the wall and push off from it.

Progression 2:

- The athlete repeats the same action from progressively faster run-ups and pushes off from the wall.
- The athlete jumps from a lower obstacle onto the wall and pushes off.

Progression 3:

- Distance and height are gradually increased, and running is progressively introduced.

Assistance and Spotting

Spotting is usually not required until the jumps become larger and the drop height becomes more hazardous. At that point, the coach stands by the wall the athlete is jumping toward and is ready to assist the athlete during the descent.

Most Common Mistakes:

- Jumping with the legs placed too low — resulting in premature slipping and possible body contact with the wall.
- Jumping with the legs placed too high — being pushed away from the wall and potentially falling to the ground on the back or head.
- Not using the hands for additional force absorption.

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ARM JUMP

Example 1: Standing Arm Jump

Photo by: Miroslav Pečatnik

Example 2: Running Arm Jump

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Photo by: Miroslav Pečatnik

Movement description:

This movement is most commonly performed by having the athlete jump from one obstacle to another that is positioned at a distance too great to land on with the feet alone, requiring the use of the hands. After the take-off from the first obstacle, both the arms and legs extend forward, and—similarly to a Cat Leap—the initial contact with the wall is made either by the feet first or simultaneously with the hands. At that moment, the body position is upright, the arms are fully extended, and support is established with the full palms placed on the top edge of the obstacle.

Purpose and application:

The purpose of this movement is to enable the athlete to safely and efficiently reach an obstacle that is too far away to be reached by a foot landing alone, by using the hands as the primary point of contact and support. In this way, it allows the athlete to bridge gaps where a standard jump or precision landing is not possible or would be too dangerous.

It is most commonly applied when crossing larger horizontal gaps between obstacles, transitioning from one obstacle to another of similar or greater height, and when approaching vertical surfaces that require hand support upon arrival. The movement also emphasizes controlling forward momentum to prevent over-rotation or falling backward, and it often serves as a setup for subsequent actions such as a climb-up. Due to its emphasis on controlled hand placement and body positioning, this movement is also frequently used as a transitional element linking jumps, climbs, and wall-based techniques.

Methodology of Learning:

Progression 1:

- The athlete practises the final position of the move to understand how it feels to support the whole body in that position.

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Progression 2:

- The athlete learns to jump from a low obstacle to a wall, making first or simultaneous contact with the feet and hands, maintaining a stable and controlled position.

Progression 3:

- The athlete focuses on placing the hands firmly on the top edge of the obstacle with full palm contact and extended arms.

Progression 4:

- The athlete learns to control forward momentum upon contact to avoid over-rotation or falling backward.

Progression 5:

- The athlete practises holding the position briefly to confirm balance and control before transitioning into the next movement.

Progression 6:

- Progressively, the distance between obstacles is increased, followed by increases in height, while maintaining correct technique and safe execution.

Assistance and Spotting

Spotting is usually not required, but if needed, the coach stands in front of the obstacle on the side the athlete is jumping on, ready to catch the athlete in case of hitting the wall or slipping and falling on the back. While the athlete is performing the jump for the first few attempts, the coach may follow the athlete with the hands during the jump and assist by supporting the hips, reducing the impact on the wall and ensuring that the athlete successfully reaches the obstacle. This assistance can later be applied when practising longer or more demanding jumps.

Most Common Mistakes:

- Insufficient take-off – the athlete can not reach the wall in the propper position.
- The athlete jumps hands first and is risking to hit the wall with the head.

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CAT LEAP/ RUNNING CAT LEAP

Example 1 - Standing Cat Leap

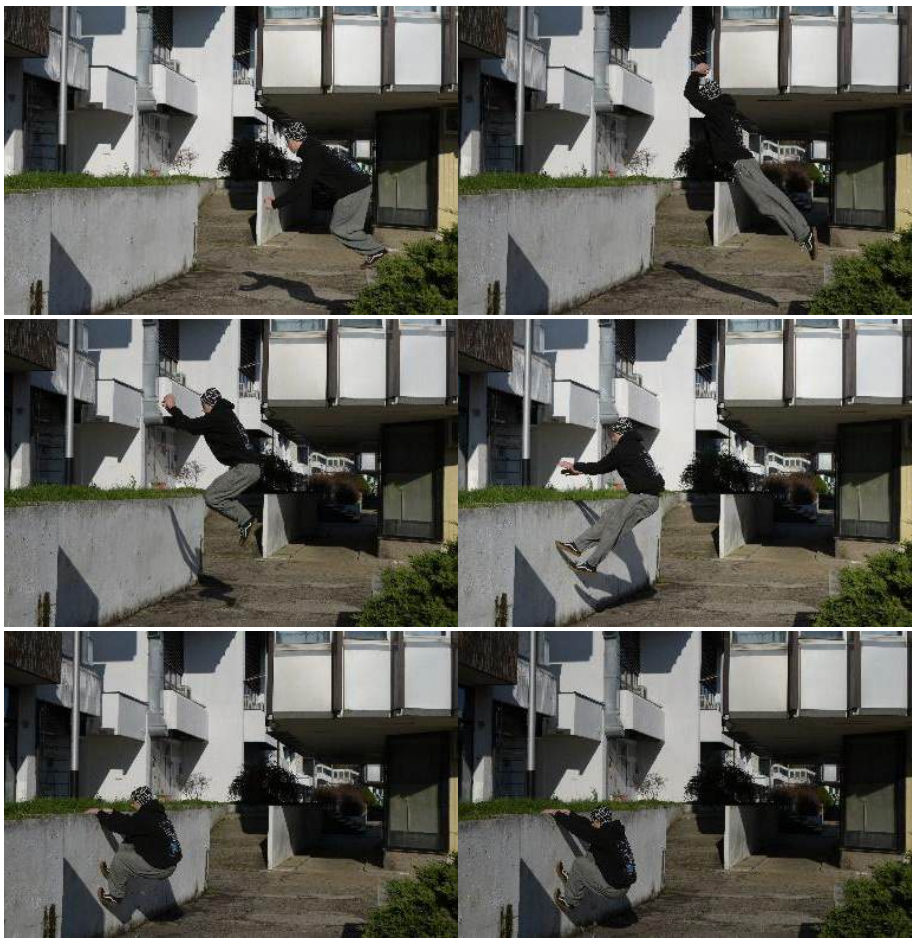

Photo by: Luka Pokupec

Example 2 - Running Cat Leap

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Photo by: Vilim Šmic

Movement description

This movement is performed by jumping onto the vertical side of a wall with the feet being the first point of contact, allowing the legs to absorb the impact, and then grabbing the top of the wall with the hands. The more accurate way to grab the wall is without an overgrip (photo 2), but sometimes this is not possible due to various reasons.

Purpose and application:

The purpose of the cat leap is to enable the athlete to clear a gap that is too large for a precision jump, or to reach a wall that is higher than the take-off point. In application, it is used when the athlete must secure the landing with the hands first on an edge and then stabilize with the feet on the wall, allowing controlled absorption and a safe hold before continuing (for example into a climb-up, a dyno, a drop, or a traverse along the wall/ledge).

Methodology of Learning:

Progression 1:

- The athlete hangs in a cat position to experience full bodyweight support and learn exactly where and how to place the feet and legs.

Progression 2:

- The athlete learns the splat, as it teaches feet-first contact on the wall and helps overcome fear of contacting a vertical surface.

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Progression 3:

- The athlete learns the arm jump, as it teaches placing the hands on the wall afterwards.

Progression 4:

- The athlete practises jumping directly into the cat position.

Progression 5:

- Introduction to the running cat leap

Assistance and Spotting

Spotting is usually done by standing next to the wall and behind the athlete's back when he or she jumps, in case they fail to grab the wall and begin falling backward. While the athlete is performing the jump for the first few attempts, the coach may follow the athlete with the hands during the jump and assist by supporting the hips, reducing the impact on the wall and ensuring that the athlete successfully reaches the obstacle. This assistance can later be applied when practising longer or more demanding jumps.

Most Common Mistakes:

- Jumping hands first.
- Jumping with the knees too close to the wall.
- Jumping with the legs too high on the wall, resulting in falling onto the back.

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DROP LANDING

Example 1: Small drop

Photo by: Vilim Šmic

Example 2: Medium drop

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Photo by: VilimŠmic

Example 3: Medium drop in motion

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Photo by: VilimŠmic

Example 4: Higher drop/ faster movement

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Photo by: Vilim Šmic

Movement description:

A drop landing is the foundational method of absorbing force when stepping or dropping down from an obstacle. It starts with a stable body position in the air—eyes forward, trunk braced, and feet aligned under the center of mass—so the athlete is prepared to meet the ground in a controlled way. The landing is initiated with a quiet midfoot/forefoot contact using active ankles; the heels may “kiss” the ground as part of the absorption process, but the landing should not be heel-first. Force is then absorbed through coordinated flexion at the ankles, knees, and hips, while the trunk remains neutral and organized and the knees track over the toes. For safety and injury prevention, the absorption phase should remain controlled and typically should not drop deeper than roughly 90 degrees of knee flexion, as excessive depth under impact can compromise alignment and increase joint stress. Finally, the athlete stabilizes and exits the landing based on the demands of the drop: they may “stick” and stabilize, step out to maintain flow, add the hands for additional force absorption when the impact is higher, or transition into a roll when height and/or horizontal speed makes a standard landing unsafe to hold.

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Main variations (by force demand):

- Low drop landing (small height): feet absorb, controlled “stick” or step-out.
- Hand-assisted landing (higher force): feet absorb first and the hands come down quickly to share load and prevent a hard, stiff landing.
- Landing into a roll (highest height and/or speed): feet contact and immediately transfer force into a smooth diagonal roll to dissipate impact over time and distance.

Purpose and application:

The purpose of drop landing is to reduce peak impact forces, protect the joints and connective tissue, and maintain enough control for the athlete to continue moving efficiently after the descent. By training drop landings consistently, athletes build reliable lower-limb shock absorption through coordinated ankle–knee–hip mechanics, improve trunk stiffness and alignment under impact, and develop practical decision-making. This way they are learning when a landing can be safely “stuck,” when additional force absorption through the hands is required, and when the safest option is to convert impact into a roll based on drop height, surface conditions, and approach speed.

In practice, drop landing applies to virtually every type of descent in parkour, including drops, dismounts, vault exits, and precision landings. A hand-assisted landing is typically selected when the drop feels “too heavy” to absorb quietly and cleanly through the legs alone, allowing the hands to share load and reduce peak forces. A roll landing becomes the preferred solution when height and/or forward speed makes a stick unsafe or inefficient, as the roll spreads impact over time and distance and allows movement to continue smoothly.

Methodology of Learning:

Learning should be progressive: stick first, then hands, then roll, and only then add speed and complexity.

Prerequisites

- Basic squat/hinge mechanics (knees track, hips load)
- Active ankle control and balance
- Fundamental trunk bracing (neutral spine under load)
- Roll fundamentals (before using roll as a landing solution)

Progression 1 – Low drop landing (“quiet stick”)

- Small drops to a stable surface
- Goal: silent landing, knees track, trunk stable, controlled stop or step-out

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Progression 2 – Hand-assisted landing (extra absorption)

- Same drops, but practice adding hands quickly to distribute force
- Teach the timing: absorb with legs → hands down immediately → stable four-point/low position → stand or continue

Progression 3 – Hand-assisted landing with more momentum (transfering forces)

- Same drops, but add some speed to the movement – practise the exit on both sides, using an arm push to maintain momentum and to distribute landing forces more effectively.Teach the timing: absorb with legs → hands down immediately → four-point/low position with an immediate push from hands diagonnaly → continue
- Teach the timing: absorb with the legs → place the hands down immediately → reach a four-point/low position → push off diagonally with the hands → continue.

Progression 4 – Landing into a roll (high force and/or speed)

- Start from low height into a roll (technical focus)
- Progress to higher drops and/or forward momentum only when the roll is smooth, diagonal, and neck-safe
- Integrate: drop→ roll → immediate continuation

Decision rule (simple coaching standard):

- If you can land quietly and stay organized → stick/step-out.
- If it's loud/heavy or you lose posture → add hands.
- If you still can't absorb safely (height/speed) → roll.

Assistance and spotting

Assistance is usually not needed, but in some cases the coach can support learning through simple cues and structured setup. This may include verbal timing cues such as "soft feet," "hips back," "hands early," or "roll through," as well as visual targets for foot placement to improve consistency and repeatability.

If a roll is used as part of the landing strategy, it is important to note that the roll must already be learned and technically reliable before it is integrated into drop landings from height or speed.

Most Common Mistakes:

- Heel-first contact - high impact, loss of balance, noisy landing.
- Stiff landing (insufficient flexion) - high joint load and poor control.
- Knees collapsing inward (valgus) - increased knee risk.
- Trunk folding/rounding excessively - loss of force control and poor exit.

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- Hands added too late (hand-assisted landing) - does not reduce peak forces.
- Rolling over the neck/head or straight down the spine - dangerous roll mechanics.
- Choosing the wrong solution (trying to “stick” when a hand-assist or roll is needed) - uncontrolled landings and higher injury risk.

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6.4 Bar & Wall Movements

TIC-TAC

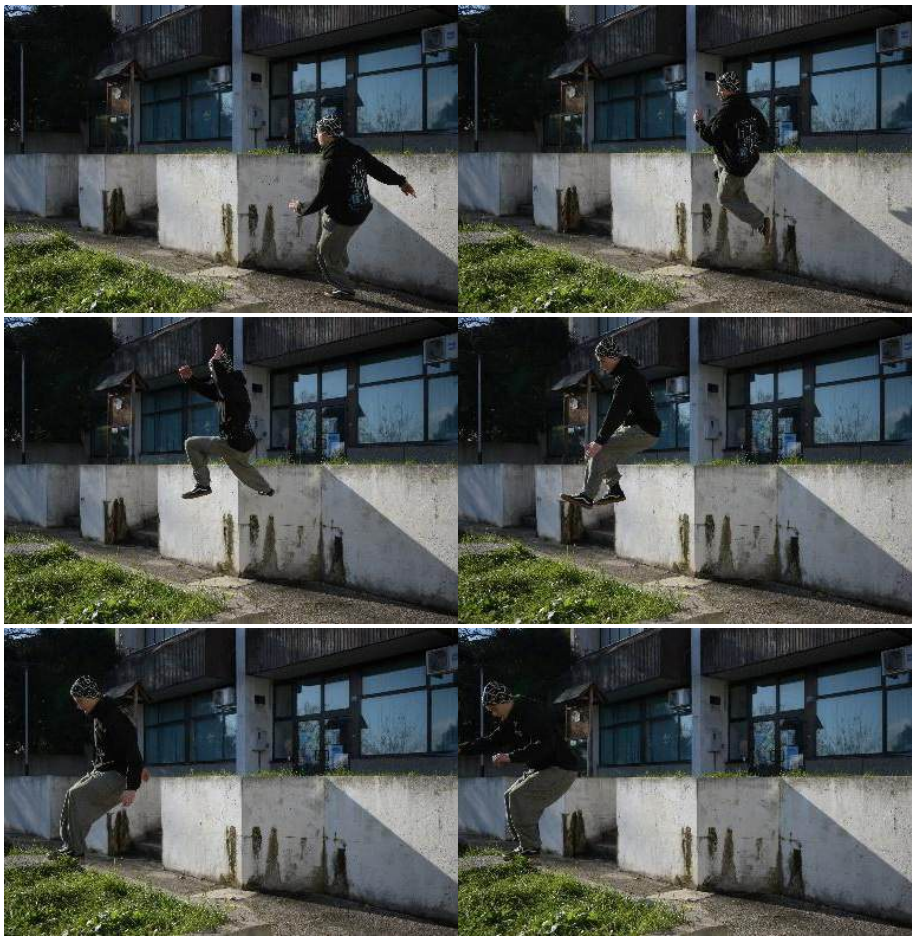

Photo by: Luka Pokupec

Movement description:

The movement is performed by having the athlete jump from a run-up, approximately one step before the obstacle, onto the vertical side of the wall at about hip height, placing the foot at roughly a 45-degree angle. After that, the athlete pushes or jumps up and away from the wall, turning the head and lifting the opposite knee while opening the hips in the direction of the landing in order to spot it and prepare for it.

A variation of this movement includes turning toward the wall. The first step is taken with the leg closer to the wall, followed by the leg farther from the wall, which turns the athlete so the chest faces

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the wall. From there, the athlete maintains the rotational momentum and completes the skill by pushing off the wall with the second leg (the one that steps later to the wall), continuing the rotation through a full 360° before landing.

Purpose and application:

The purpose of this movement is to clear a gap, go over a smaller or medium height obstacle, or even to jump over higher obstacle that cannot be jumped over directly from the ground. With a Tic-Tac, the wall is used to gain height, distance, change the direction of running and/or jumping, or achieve a combination of these.

Methodology of Learning:

Progression 1:

- Positioning the foot on the wall.
- Determining the correct angle of approach toward the wall.
- Determining the correct distance from which to jump.

Progression 2:

- Combining the first three elements (foot position, approach angle, jump distance) without pushing off the wall.

Progression 3:

- Learning the push-off from the wall.

Progression 4:

- Learning the turn mechanics: turning the head, lifting the opposite knee, and opening the hips.
- Pushing off the wall while turning the head, lifting the knee, and opening the hips.

Progression 5:

- Combining all elements at lower speed.

Progression 6:

- Progressing to higher speeds and more powerful jumps.

Assistance and Spotting

Spotting is usually not required, but if the athlete is afraid, the coach can stand close to the wall while the athlete jumps between the coach and the wall. This allows the coach to catch the athlete in case of a mistake on the wall.

Most Common Mistakes:

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- Placing the foot too low on the wall — slipping and hitting the wall with the body.
- Placing the foot too high on the wall — the athlete is pushed forcefully and horizontally away from the wall, potentially losing balance and falling.
- Failing to adjust the height and distance relative to the landing spot (ground, wall, rail, etc.).

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POP UP

Photo by: Luka Pokupec

Movement description:

The athlete is in a straight-arm support on the edge of the wall, with the legs hanging freely along the wall. From this position, the athlete simultaneously drives vertically into the wall with the toes of one foot while swinging the other leg backward. These two actions, followed immediately by a strong push through the arms, lift the hips into a Kong position. The athlete then tucks the knees toward the chest and continues pushing upward through the arms, releasing the hands from the edge in order to land on top of the same wall, where the hands were initially placed.

Purpose and application:

The purpose of the pop-up is to help the athlete get faster onto the top of an obstacle—most commonly a wall—after arriving in a position such as a climb-up, cat leap, or arm jump. Instead of com-

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pleting a slow, step-by-step top-out, the pop-up emphasizes a more immediate and efficient transition onto the surface, allowing the athlete to regain movement speed and continue the line with minimal delay. This technique also enables the athlete to take off immediately after the climb-up, either from both legs or from one leg, depending on the obstacle height, the athlete's orientation, and the intended continuation (e.g., immediate run-out, jump, precision, or another link).

Methodology of Learning:

Progression 1:

- From the starting support position, practise pushing vertically into the wall with the foot.

Progression 2:

- Practise swinging the other leg backward to create the counter-movement.

Progression 3:

- Learn to synchronize the foot push and the backward leg swing into one coordinated action.

Progression 4:

- After the previous step is consistent, add the upward arm push immediately after the synchronized leg action.

Progression 5:

- Perform the entire movement, but arrive on top to the side, moving/repositioning one hand during the top-out.

Progression 6:

- Perform the full movement correctly, landing on top of the wall at the intended position with control and readiness to continue.

Assistance and Spotting

The coach stands with his hands forward (ready to catch the athlete) on the opposite side of the wall in case the athlete does not lift the hips high enough, catches the feet on the top edge of the wall, and begins to fall over. If the wall is shaped like the example above, the coach may instead stand below next to the wall, in case the athlete falls backwards, although this is less likely to happen and less dangerous than the first scenario.

Most Common Mistakes:

- Insufficient push with the foot.
- Insufficient swing with the other leg.
- Insufficient push with the arms.
- Inadequate hip height.
- Catching the feet on the top of the wall.
- Loss of balance on the top.

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CLIMB UP

Example 1: With over-grip

Photo by: Luka Pokupec

Example 2: Without over-grip – hand transition needed

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Photo by: Miroslav Pečatnik

Movement description:

A climb-up is the transition from a supported hang or cat position on an edge into a stable standing position on top of the obstacle. The movement begins with a secure two-hand grip and a well-organized body position—active scapulae, a braced trunk, and the eyes directed to the top surface where the athlete intends to stand. From this set-up, the athlete initiates upward movement through a coordinated pull combined with a simultaneous leg push, with the feet placed in a slight staggered stance on the wall to generate additional drive and reduce the load on the upper body. This pull–push action brings the chest toward the ledge and then over it, maintaining shoulder stability and keeping the hips close so the edge can be effectively loaded. As the torso passes the edge, the athlete transitions from a pulling grip into a supportive hand position on top, then continues with an active push through the arms to raise the body and straighten into an upright position. The climb-up is completed by establishing a stable base on the top surface and finishing the movement with controlled extension to standing, ready to continue immediately into the next action or obstacle.

Purpose and application:

The purpose of the climb-up is to provide a reliable and efficient way to gain a platform after a catch and continue movement without breaking flow, hether the catch comes from a wall run, a dyno, a laché exit, a cat hang, or another transition into an edge.

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The climb-up is most commonly applied in direct combination with wall run, but it also serves as a general traversal solution whenever an athlete needs to reach a ledge quickly and safely to maintain continuity through a route or line.

Methodology of Learning:

Progression 1 – Low ledge mechanics

- Low ledge: pull to chest → shift torso over → hands to support
- Break it into pauses (freeze positions) to teach sequencing

Progression 2 – Cat hang climb-up

- Start from cat (feet on wall): reduces load and teaches correct torso-over-ledge pathway

Progression 3 – Integration and speed

- Link from wall run/dyno catches
- Gradually increase height, speed, and complexity
- Require clean top-out with no slipping or shoulder collapse

Assistance and spotting

In most cases, coach assistance is not necessary. If support is needed, it should be used only to help the athlete manage the pull and/or the transition from pulling to pushing on the top edge. One practical option is for the coach to place a foot on the wall as a temporary step, giving the athlete an additional foothold to reduce load and improve positioning during the shift. Alternatively, the coach may provide a brief, light lift under the armpits to help the athlete rise slightly and complete the transition safely.

Most Common Mistakes:

- Pulling only upward without shifting over the ledge - stall at the edge.
- Hips drifting away from the wall/ledge - swing and loss of leverage.
- Late hand reposition stuck in pull grip, unstable support.
- Passive shoulders - collapse and shoulder stress.
- Poor foot timing (foot placed late or too far) - unstable top-out.
- Rushing the stand - slipping and loss of balance.

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WALL RUN

Photo by: Vilim Šmic

Movement description:

A wall run is a technique used to gain height on a vertical surface by converting horizontal approach speed into upward momentum through one or more steps on the wall. The movement begins with a controlled approach on a clear line, with the eyes fixed on the target height and the body prepared to lean slightly into the wall. The final step establishes the correct take-off distance, allowing the

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hips and chest to stay “committed” toward the surface rather than drifting away. The lead foot then makes the first wall contact at approximately hip height, landing on the ball or midfoot with an active, dorsiflexed ankle. From this contact, the athlete drives upward by pushing back and down into the wall to project the body up and forward. At the same time, strong arm drive supports the projection, and the hands prepare for whatever finish is required—either catching a ledge for a climb-up, securing an edge for a cat hang, or continuing into another linking movement. After the wall contact step(s), the athlete transitions smoothly into the chosen outcome and finishes with controlled stabilization on top, or a safe catch/landing that allows immediate continuation.

Wall runs are commonly performed in several main variations. A single-step wall run uses one decisive wall step and is often the fastest option for quick height gain into a catch, while a two-step wall run adds a second contact to reach higher when surface texture and spacing allow. A wall run to climb-up (top-out) connects the wall run directly into a ledge catch followed by a pull and transition to standing on top. A wall run to cat hang finishes by catching the edge, placing the feet back onto the wall, and stabilizing in the cat position.

Purpose and application:

The purpose of the wall run is to provide an efficient way to gain vertical height on a wall without relying on a pure vertical jump. It helps preserve flow and speed in environments where climbing straight up would be slower or less feasible

In practice, the wall run is applied when an athlete needs to reach a ledge, rail, or platform above head height, transition into a cat hang or climb-up, or maintain continuity in a line (e.g., sprint → wall run → climb-up → run). It is common in both training and performance settings and appears frequently in speed-oriented movement sequences.

Methodology of Learning:

Progression 1 – Foot placement and angle control

- Step-and-press drills on a low wall: single foot contact, feel the push direction
- Marked targets on the wall (low height): consistent placement at the same spot
- Emphasis on dorsiflexion and “quiet” contact (no slipping)

Progression 2 – Single-step wall run (no catch)

- Short approach (2–4 steps) → one wall step → controlled return to ground
- Focus: correct take-off distance, committed chest/hips, clean push

Progression 3 – Add the catch

- Wall run → touch/catch a low edge (hands first) → step down safely
- Progress to wall run → **cat hang** (feet to wall, stabilize), or wall run → **ledge catch**

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Progression 4 – Transition and performance

- Wall run → ledge catch → assisted climb-up mechanics → full top-out
- Gradually increase approach speed, height, and complexity
- Link into sequences: run → wall run → climb-up/cat → continuation

Assistance and spotting

Spotting for wall runs focuses on risk management (surface, height, exit strategy) and guided transitions, especially when a catch or climb-up is involved.

- Check wall texture/friction, stability, and hazards (wet surfaces, loose plaster, sharp edges)
- Use mats/crash pads in the landing zone and under the catch area
- Start with lower heights and controlled approaches
- Ensure the athlete has a clear bail/exit option (step down, drop to mat)
- Hip/torso guidance: coach stands slightly to the side to guide body commitment and prevent leaning away.
- Assisted catch support: during early ledge catches, coach supports at the torso/hips to reduce impact and help stabilize.
- Climb-up assistance: light support at hips or thigh as the athlete transitions from hang to top-out.

Most Common Mistakes:

- Poor take-off distance (too close or too far) → foot slides or the athlete "peels" away from the wall.
- Passive ankle/flat foot contact → loss of traction and weak projection.
- Pushing straight down instead of through the wall → no upward gain, body drops back.
- Leaning away from the wall → unstable contact and poor height.
- Looking down or losing the target → inconsistent timing and late hands.
- Foot placed too low (or too high without control) → insufficient height or slipping.
- Hands late on the catch → impact into shoulders, failed top-out/cat.
- Rushing to height without progression → fear response, chaotic mechanics, increased risk.

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DYNO

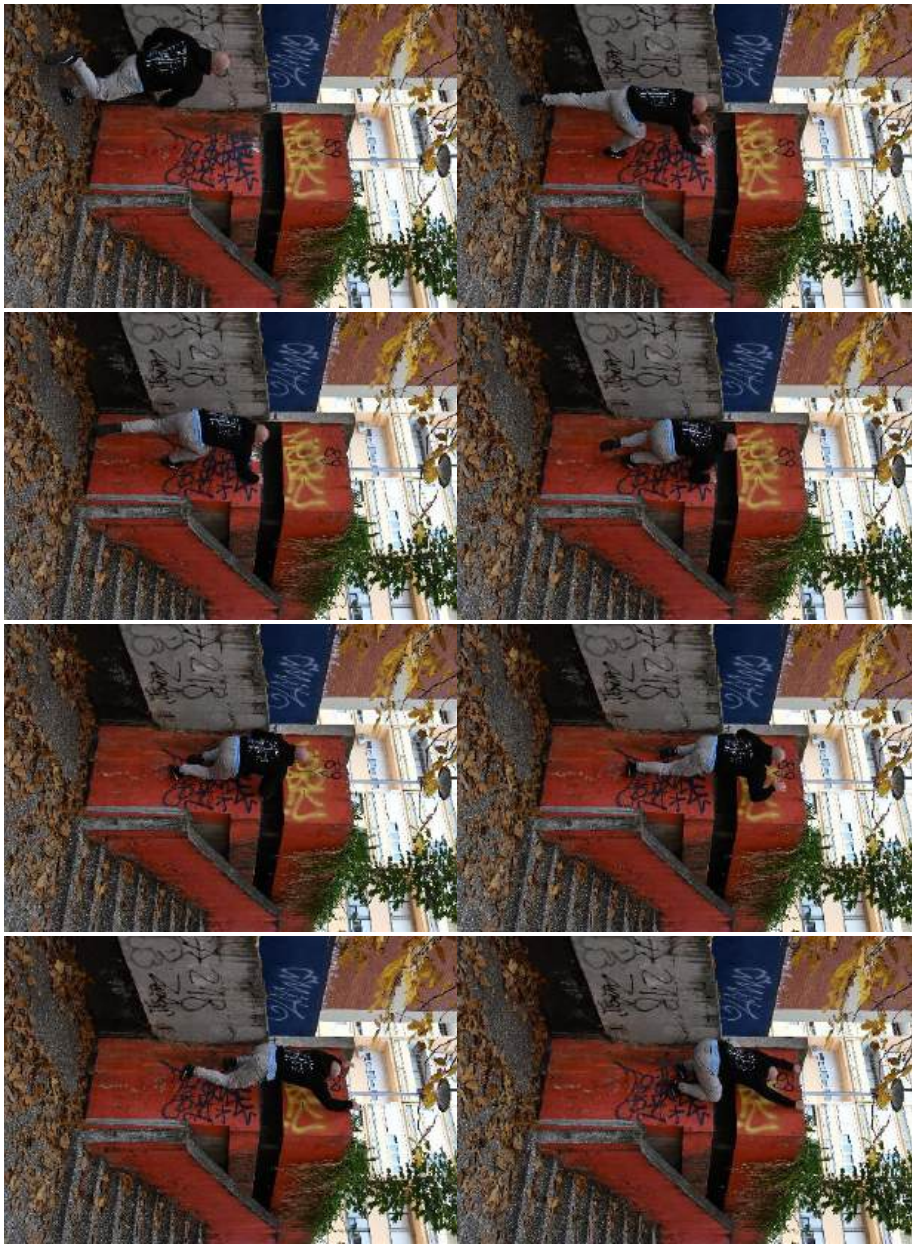

Photo by: Vilim Šmic

Movement description:

The movement is completed with a precise catch and absorption, where the athlete catches with active scapulae and absorbs impact through the shoulder–elbow–trunk chain, avoiding a passive "dead catch." Finally, in stabilization and continuation, the athlete controls the resulting swing or settles into support, then immediately links into the next action.

Dyno execution can vary depending on context and demands. A dyno from a run-up is performed di-

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rectly from the ground, into a catch on a bar or ledge, while a swing dyno uses a controlled swing before release to gain additional height or distance. A cat dyno begins from a stable cat position (hands on the edge, feet supported on the wall), using a coordinated push from the feet and pull/drive from the arms to project into the catch. Dynos may also be directed to a higher or lower target, which changes the required trajectory and the absorption demands at the catch.

Purpose and application:

The purpose of a dyno is to create a fast, efficient gain in height or distance by committing to a dynamic catch rather than climbing or stepping progressively. It strongly develops rate of force production, projection timing, and accuracy under speed, while also building grip strength, dynamic shoulder-girdle stability (active scapulae under impact), and high-quality core control to prevent uncontrolled swing and rotation.

In practice, dynos are used to reach bars, ledges, rails, or structures that are not accessible with a simple jump or static grab, to maintain flow in lines (e.g., run → dyno → swing → laché / dismount), and in performance/competition settings where the goal is a clean, committed transfer with minimal time loss.

Methodology of Learning:

Learning dyno should progress from safe catch mechanics to projection, and only then to greater height/distance.

Progression 1 – Catch mechanics (low risk)

- Low target jump-to-catch (small height difference)
- "Catch and freeze" holds (2–3 s) with active scapulae
- Controlled drop-to-hang (teach absorption, not shock)

Progression 2 – Projection and timing

- Add a small pre-load + arm drive (focus on trajectory)
- Target marks on the bar/ledge (repeatable accuracy)
- "Touch first" drills (jump to touch target, then progress to catch)

Progression 3 – Increase height/distance

- Gradual increases only
- Add controlled swing dyno only after stable static dyno
- Cat dyno (short reach): start from a stable cat position (hands on the edge, feet on the wall), then coordinate a strong leg push with an arm drive into a controlled catch.
- Wall dyno to ledge (touch first): from a small approach or step-in, jump/dyno to touch the top edge/hold, focusing on trajectory and accurate hand placement (no catch yet if the

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height is challenging).

Progression 4 – Integration into sequences

- Dyno → controlled swing → dismount/precision
- Dyno → regrip → laché (advanced)
- Competition-style linking with strict quality standards (clean catch, fast stabilization)
- Wall dyno → ledge catch → controlled hang/support: commit to a clean two-hand catch with active scapulae, absorb force through the shoulder–elbow–trunk chain, and stabilize before transitioning.
- Wall dyno → climb-up mechanics (assisted): after the catch, practice the top-out sequence with light assistance (hip support) to learn safe positioning and timing.
- Full wall dyno → climb-up: once the catch is consistently stable, complete the climb-up to standing with control (no rushing, no "panic pull").

Assistance and spotting

Spotting for dyno must be conservative because the primary risk is missed catch or poor absorption on the catch.

- Verified bar/ledge stability and clean surfaces (chalk if needed)
- Start with low targets and small distances
- Clear bailout plan (safe drop, no obstacles under/behind)
- Trajectory guidance: coach stands to the side to cue take-off distance and line (mostly verbal).
- Assisted projection drills: use a slightly raised take-off or step to reduce load and improve timing.
- Assisted catch (only low risk): coach near the target to reduce rotation and prevent slipping (minimal contact, only at low height).

Most Common Mistakes:

- Poor take-off distance (too close or too far) → foot slides or the athlete "peels" away from the wall.
- Passive ankle/flat foot contact - loss of traction and weak projection.
- Pushing straight down instead of through the wall - no upward gain, body drops back.
- Leaning away from the wall - unstable contact and poor height.
- Looking down or losing the target - inconsistent timing and late hands.
- Foot placed too low (or too high without control) - insufficient height or slipping.
- Hands late on the catch - impact into shoulders, failed top-out/cat.
- Rushing to height without progression - fear response, chaotic mechanics, increased risk.

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TURN VAULT

Example 1:

Photo by: Miroslav Pečatnik

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Example 2:

Photo by: Miroslav Pečatnik

Movement description:

A turn vault (demi-tour) is a 180° turning vault performed over a rail or wall. It most commonly finishes in a cat hang, but it can also finish in a support position on extended arms or in a precision landing on the ledge on the far side, depending on the height and the intended continuation. The movement begins with a controlled approach on a clear line, with the athlete's eyes fixed on the edge or rail. The chest and hips stay committed toward the obstacle as the hands are placed firmly on top to create a stable support point. The hand on the side of the body toward which the rotation will occur may be turned at the very beginning into external rotation, with the fingers pointing back toward the athlete, to facilitate a smoother pivot and hand transition.

From this loaded position, the athlete jumps and pushes through the hands to initiate the half-turn, leading the rotation with the hips and shoulders while keeping the body compact so the legs clear the obstacle cleanly. While in the air, the hand opposite the direction of rotation repositions to the far side of the pivoting hand so the athlete can complete the rotation without blocking the pathway. As the 180° turn finishes, the hands transfer into a secure catch on the far edge and the feet place onto the wall to settle into a well-organized cat position—or the athlete stabilizes in extended-arm support or a precise landing on the ledge. The skill then links immediately into the next action, such as a climb-up, dyno, drop, or another transition.

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Purpose and application:

The purpose of the turn vault is to create a fast 180° direction change and controlled repositioning over an obstacle while staying close to the structure and preserving movement continuity. It often finishes in a cat hang, which helps manage height, increase safety, and keep multiple flow options available immediately after the turn.

The turn vault is most commonly used in lines where a quick redirection is required without stepping around the obstacle. It functions effectively as a connector into follow-up actions.

Methodology of Learning:

- The athlete should know reliable cat hang (hands secure, feet stable, shoulders active)
- Ground 180° jump turns (spotting the exit)
- Basic shoulder/scapular control and landing fundamentals
- Also, knowing palm spin would help a lot

Progression 1 – Low obstacle patterning

- On low rail or wall doing safety vault, sitting and than turning
- Doing the same move but without sitting

Progression 2 – Demi-tour to cat (low)

- On the same low wall now doing the same safety into turn but with a jump
- Doing the same thing with minimal leg contact
- Now jumping in the full move without touching the top of the wall or rail with the leg

Progression 3 – Height and speed

- Increase height gradually
- Add controlled approach speed
- Link: demi-tour to cat → drop landing / dyno / to cat

Assistance and spotting

The coach can stand slightly behind/to the side and provide light support at the mid/upper back (thoracic area) during the rotation to keep the hips lifted and the line consistent. In early attempts, brief support under the arms can help the athlete finish the 180° and settle safely into the cat without collapsing into the shoulders or hitting the top of the wall. Any assistance should guide positioning and not “carry” the athlete through.

Most Common Mistakes:

- Take-off too close/too far - poor clearance or loss of control.
- Passive shoulders - collapse on catch, unstable cat hang, higher joint stress.
- Rotation started late (shoulders/hips not committed) - under-rotation, awkward catch.

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- Instead of rotation going mostly up, it goes too much away to the other side over the wall or rail - possibly unable to hold the grip due to a lot of rotational force and falls over
- Legs not compact - shin/foot clips the rail/wall.
- Feet placed late in cat - unstable swing and slipping.

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BALANCE

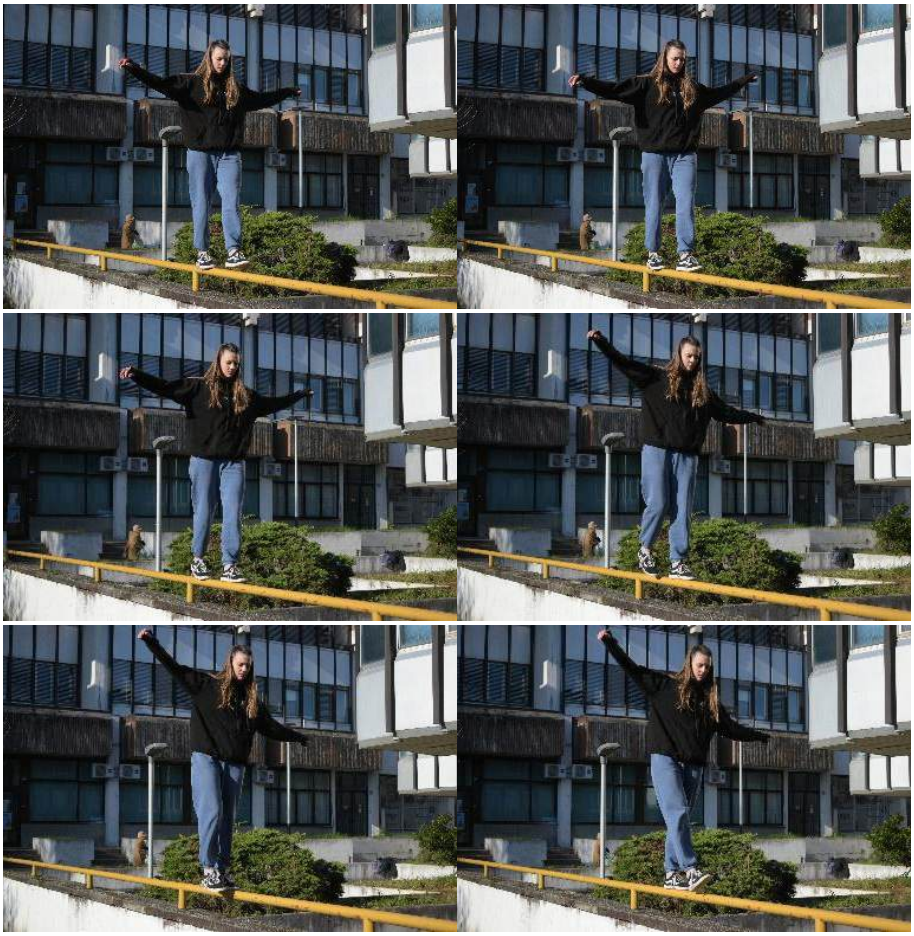

Photo by: Luka Pokupec

Movement description:

This movement is performed simply by walking on a small surface while trying to remain in balance, without falling off the obstacle on either side. The position of the foot should be straight or slightly rotated outward so that the big toe and the heel remain in contact with the surface.

Purpose and application:

The purpose of this movement is to be able to cross a certain distance on a narrow or small surface when there is no other way. It is also very important for landing control and for landings performed on similar narrow surfaces.

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Methodology of Learning:

Progression 1:

- The athlete stands with one leg on the rail, the other leg slightly abducted, and the arms raised for balance, using support (partner/coach holding the hand, or light contact with another surface).

Progression 2:

- The athlete holds balance in a squatting position on the rail (with support).

Progression 3:

- The athlete attempts to stand up on the rail with minimal support.

Progression 4:

- With partner/coach support, the athlete takes a step forward, aiming to maintain balance and control on the other leg.

Progression 5:

- The athlete walks on the rail with partner/coach support, while the partner/coach walks next to them on the ground.

Progression 6:

- The athlete repeats all previous steps with minimal and than with no support.

Assistance and Spotting

Spotting is usually done by holding the athlete's hand and later progressing to simply walking next to the athlete with a hand raised in the air, allowing him/her to use it only when needed.

Most Common Mistakes:

- Trying to walk as fast as possible to cross more distance
- Incorrect foot placement

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POLE SWING

Example 1:

Photo by: Lovro Crnarić

Example 2:

Photo by: Lovro Crnarić

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Movement description:

A pole swing is a swinging movement performed on a vertical pole in which the athlete uses a secure hand grip—often with a brief foot assist on entry—to generate a circular or semi-circular swing around the pole. The movement begins with the athlete approaching on a clear line and selecting an appropriate grip height. Once the hands are set, the athlete loads the pole by stepping or lightly hopping into the swing, maintaining active scapulae and a braced trunk to prevent collapsing through the shoulders. Momentum is then built and controlled through coordinated shoulder action, trunk tension, and an organized leg swing, allowing the body to travel smoothly around the pole. During the passage phase, the athlete keeps the body compact and controlled as the hips follow the pole line without drifting or over-rotating. As the swing reaches the correct trajectory, the athlete pulls and releases at the right moment to project toward the intended landing or target—either returning to the ground, stepping onto a nearby obstacle, or linking directly into another movement. The skill finishes with a controlled landing, force absorption, quick re-stabilization, and immediate continuation into the next element of the line.

Main variations:

- Low-amplitude swing: controlled entry/exit, best for learning (e.g. 1).
- High-amplitude swing: greater travel around the pole, higher demands (e.g. 2).
- Swing to ground exit vs swing to obstacle: exit target changes timing and projection.

Purpose and application:

The purpose of the pole swing is to enable efficient redirection and travel around a vertical structure while maintaining flow and conserving energy compared to climbing or stopping.

In practice, it is applied in urban environments with poles (lamp posts, sign poles) or training setups, especially when the athlete needs to change direction quickly, cross a small gap using the swing's projection, or link into a line without dropping speed.

Methodology of Learning:

Progression 1:

- Static grip holds on the pole (active shoulders, braced trunk).

Progression 2:

- Step-in load and small swings (low amplitude), focusing on control.

Progression 3:

- Controlled half-turn swing around the pole and step-out exit.

Progression 4:

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- Increase swing amplitude and learn release timing to a marked landing zone.

Progression 5:

- Swing-to-target (small obstacle) and link into the next movement.

Assistance and Spotting

Assistance is usually minimal. A coach can stand near the landing side to prevent uncontrolled falls and can provide verbal cueing for grip height, timing, and exit direction.

Most Common Mistakes:

- Passive shoulders - slipping and poor control.
- Weak grip / poor hand positioning - early release, loss of swing line.
- Over-rotating the hip - chaotic swing and bad exit.
- Releasing too early/late - missed landing line.
- Looking down / not spotting exit - inconsistent direction and landing.

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UNDERBAR

Example 1:

Photo by: Miroslav Pečatnik

Example 2:

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Photo by: Miroslav Pečatnik

Movement description:

Underbar is a technique for passing under a bar/obstacle through an opening (e.g., a handrail, a "window" between two rails, a low bar structure), where the athlete uses the hands as support/grip to control the body while the legs are brought through the space in a tuck or pike variation, maintaining horizontal momentum and preparing for a landing or continuation.

The underbar begins with the approach and set-up, where the athlete first assesses the opening and chooses the most efficient line of travel. The body is lowered by dropping the center of mass, the core is actively braced to maintain stability, and the eyes stay focused through the opening toward the exit point to preserve a clear pathway and movement continuity. This is followed by the grip and load phase, in which the hands are placed on the top bar or edge while the scapulae remain active (depression and stabilization). The athlete then transfers body weight in a controlled manner into a support or hang position, avoiding any collapse into the shoulders. During the passage phase, the athlete flexes

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the hips and knees into a tuck or pike shape, keeps the trunk compact, and guides the legs through or under the opening while maintaining a stable body line. Next comes release and projection, where an active pull through the arms projects the body forward, and the grip is released at the correct moment to preserve horizontal momentum and create a clean exit. Finally, in landing and continuation, the athlete performs a soft landing (or a step-through), re-stabilizes quickly, and immediately connects into the next movement or obstacle.

Underbar is commonly performed in several main variations. Static underbar starts from a stationary position (example 1) and is the most effective learning variation because it allows the athlete to refine body position, timing, and shoulder–core control without the added demands of speed. Running underbar (example 2) is executed from a controlled run-in and is the most common form in performance and competition, as it supports speed maintenance and flow. Regarding leg position, the tuck variation is more compact and beginner-friendly, while the pike variation can be faster through tighter openings but requires a higher level of trunk and hip control as well as more precise timing.

Purpose and application:

The purpose of the underbar is to enable efficient traversal through narrow urban structures without having to go over the obstacle, which often saves time and reduces unnecessary vertical movement. It is particularly valuable for preserving speed and maintaining a clean line of travel, especially in Speed events, where even small interruptions in rhythm can significantly affect overall performance. From a physical and technical development perspective, the underbar also targets several key capacities: it strengthens grip strength, reinforces shoulder girdle stability, demands high-quality core control, and improves coordination between upper-body push/pull actions and hip flexion required to bring the legs through the opening.

The underbar is commonly applied in parkour routes and speed courses, especially on obstacles such as rails, barriers with openings, and bar structures. It becomes the preferred option whenever going over the obstacle would be slower, less efficient, or potentially riskier, for example due to poor take-off space, awkward landing conditions, or height constraints. Additionally, the underbar is frequently used as a linking element within fluent sequences, allowing athletes to connect transitions smoothly—such as underbar → landing → sprint, or continuing directly into a precision or a roll depending on the demands of the environment and the intended movement flow.

Methodology of Learning:

Learning the underbar progresses from positional control to dynamic execution, and only then to speed.

- Active hang (stable scapulae; no “hanging into the shoulders”)

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- Basic swing control (small forward–back swing)
- Tuck/pike control in the air (knees-to-chest without losing trunk position)
- Landing fundamentals (absorption and stabilization)

Progression 1 – without a full pass

- Floor / low-support simulation: tuck/pike shape + spinal control.
- Supported position on a low bar/edge: hands fixed, shift hips back–forward without passing through (learn loading and scapular control).
- Mini pass through a "large opening" (safe): height and width chosen so contact with knees/feet is unlikely.

Progression 2 – Static underbar (technical execution)

- Grip – active scapulae – compact trunk
- Tuck: knees quickly to chest, feet pass through the opening
- Projection: "push space behind you" (shoulders drive, hips lead through forward and not down)
- Landing: soft, eyes forward, ready to continue

Progression 3 – Running underbar (speed integration)

- Controlled approach (2–4 steps), not maximal speed
- Consistent hand placement (repeatability first)
- Tuck timing (too late = contact; too early = loss of momentum)
- Exit into sprint or the next element

Assistance and spotting

Classic spotting is limited in the underbar due to the moving body passing through a confined space. Safety is achieved primarily through appropriate regressions and environment setup, with assistance used selectively.

- Larger opening and lower speed early on
- Clearly marked hand placement zone (consistency)
- Check the structure (stability, grip/slipperiness, sharp edges)
- Hip guidance: coach positioned to the side, hand on pelvis/lower back to guide trajectory (prevents "dropping" downward).
- Leg guidance (if needed): light guidance of knees/feet through the opening for beginners (minimal intervention).
- Reduced load/amplitude: step or raised start to reduce hanging depth and simplify tuck timing.
- Partner support (advanced beginners): partner stabilizes initial shoulder/trunk position while the athlete practices the leg pass.

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Most Common Mistakes:

- Passive shoulders (“hanging into the shoulders”) – loss of control, drop downward, increased shoulder stress.
- Late leg tuck (late timing) - feet/knees hit the bar/frame.
- Early tuck - “stalling” under the bar, loss of horizontal momentum, athlete gets stuck underneath.
- Looking down - losing the travel line, trunk breaks, poor exit and landing.
- Grip too wide or too narrow - trunk instability, unwanted rotation, inconsistent pass.
- Dropping instead of projecting (no active exit) - hard landing, speed loss, higher injury risk.

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LACHÉ

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Photo by: Miroslav Pečatnik

Movement description:

Laché is a dynamic transfer from one bar or rail to another, performed from an active hang and developed through a controlled hollow–arch/tap swing. The athlete begins by establishing stable scapular control, a braced trunk, and clear visual focus on the target, then gradually builds swing amplitude without losing shoulder or core organization. At the moment when the swing trajectory is most favorable, the athlete applies a precise tap—coordinating arch ("opening") and hollow ("closing")—to generate forward, primarily horizontal projection. Importantly, the release is not just "letting go" of the bar;

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the athlete should actively throw the bar behind them through a strong push/pull action so the upper body can rise and stay organized, preventing the body from collapsing backward and "falling onto the back" during flight. The athlete then travels through a compact flight phase with minimal rotation while the arms actively reach for the target bar. The movement is completed with a controlled catch using active scapulae, absorbing force through the shoulder–elbow–trunk chain and managing the rebound swing, before continuing into the next element (such as a dismount, a precision, or another transfer).

Purpose and application:

The purpose of laché is to enable a fast and efficient transfer across a gap between two obstacles without dropping to the ground, while preserving rhythm and movement continuity.

In practice, laché is most commonly used in bar environments—such as playgrounds, street workout parks, and urban rail setups—as a fundamental transfer between structures. It is also a key linking skill in freestyle and flow lines, connecting elements smoothly (e.g., swing → laché → swing → some acrobatic move and dismount). In competitive and demonstration routines, it is frequently selected when the goal is maximal fluidity and a clean, technically organized transition between obstacles.

Methodology of Learning:

Before learning laché, the athlete should demonstrate:

- Active hang (no collapsing into the shoulders)
- Scapular control (scap pull-up/hold)
- Hollow–arch fundamentals (on the floor and in the hang)
- A safe regrip and tolerance to rebound forces after the catch
- Basic distance judgement and targeting (clear visual focus)

Progression 1 – Swing control

Start by building a quiet, organized swing:

- Active hang holds (10–20 s) with scapular depression
- Micro-swing (small amplitude) while maintaining stable scapulae
- Hollow–arch swing with a clear rhythm, avoiding "breaking" through the lumbar spine
- Tap swing drills with emphasis on timing rather than strength

Progression 2 – "Pop" and projection without transfer

Develop projection mechanics without committing to a full transfer:

- Pop swing (a brief acceleration from the tap) without releasing
- Release simulation: momentarily releasing one hand for a split second (at a safe height), or

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touching the target without catching (only if safe and practical.

- Targeting drill: visually aim for the catch point; the hands travel forward, not upward

Progression 3 – Short laché (safe distance)

Introduce the transfer on the simplest setup:

- Small gap between bars at the same height
- Clear landing zone
- Emphasis on release timing and catch stabilization, not on distance

Progression 4 – Greater distance and different heights

Gradually increase complexity:

- Progressive increases in distance
- Laché to a higher or lower bar (changes trajectory and timing)
- Linking into sequences (e.g., laché → swing → dismount, or laché → another transfer)

Assistance and spotting

Spotting for laché must be conservative and safety-focused, because the skill involves flight and a high catch. For this reason, safety relies primarily on proper environment setup and appropriate regressions, rather than hands-on "saving" of attempts.

- Clearly tested bar stability
- Controlled distance, starting very small
- No slippery surfaces; chalk if needed for grip
- Guided swing: the coach stands to the side and guides the hips/torso during the swing (not pulling the athlete, but stabilizing the pathway).
- Timing cueing: verbal cues during the tap and at the moment of release (especially helpful during learning).
- Assisted catch (only at short distances): the coach stands near the target bar and "secures" the catch by preventing slipping or unwanted rotation (minimal intervention).

Most Common Mistakes:

- Passive shoulders / collapsing into the shoulders - loss of control, increased shoulder stress, poor catch.
- Too much amplitude too early - uncontrolled swing, fear response, poor timing, higher risk.
- Poor tap timing (closing too late or too early) - no effective projection, or projection goes "up" instead of "forward."
- Releasing too early / too late - missed distance, catching in a poor position, unwanted rotation.
- "Kicking the legs" instead of an organized hollow–arch pattern - swing becomes chaotic, the

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trunk breaks, trajectory becomes unpredictable.

- Looking down or searching for the target too late - inaccurate targeting, late hands, insecure catch.
- Catching with “soft” scapulae and bent elbows without control - shock into the shoulders, slipping, loss of grip.
- Habitual one-arm catch (“chicken wing”) - asymmetrical loading, higher risk of injury and rotation.

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RAIL FLARE (ITALIAN JOB)

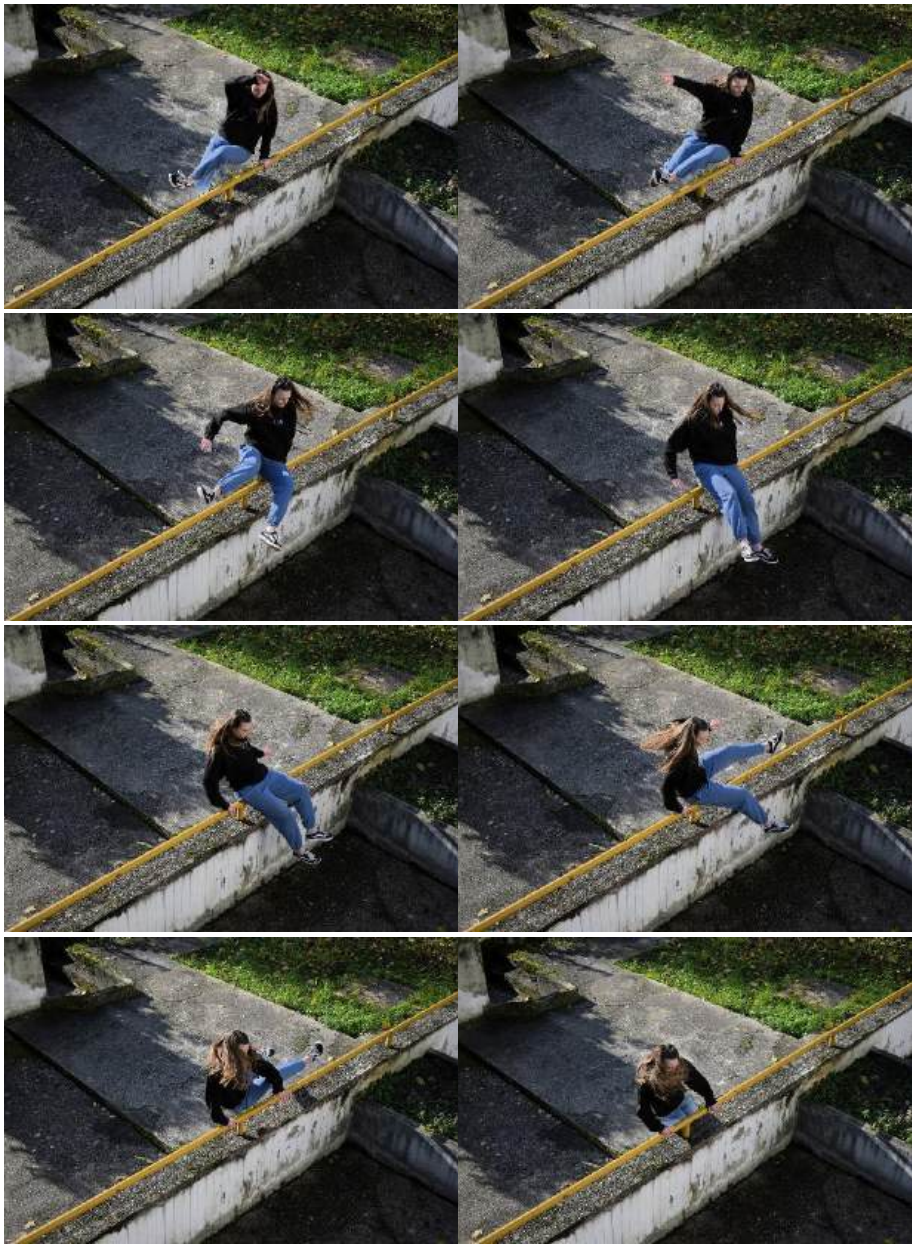

Photo by: Luka Pokupec

Movement description:

A rail flare (often referred to as the italian job) is a rail-flow movement used to rotate around a rail while maintaining continuous hand support and a controlled leg swing. The entry is similar to a lazy vault except that the athlete “sits” onto the rail with the upper part of the thigh, keeping the hips close to the rail and the shoulders active. From this seated contact, the athlete initiates a semi-circular swing

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around the rail, lifting and organizing the body so the center of mass stays contained and does not drift away from the line of support. As the body travels through the arc, the hands guide the rotation and the hand placement changes progressively on the rail—re-gripping at the right moment—so the athlete can continue the turn and exit cleanly on the opposite side.

More skilled athletes often complete the exit so that, as they come out of the rotation, they end in the same orientation as they started—facing the rail—despite having traveled through the semi-circular path around it.

Purpose and application:

The purpose of the rail flare/italian job is to create a smooth direction change and continuity on rails without stepping off, supporting flow and rhythm in freestyle lines. In practice it is used as a foundational rail-flow connector in rail environments (playgrounds, street workout parks, urban rails) and is recognized as a basic freerunning/parkour element in FIG reference material.

Methodology of Learning:

- Comfortable rail sit/support and basic rail balance
- Wrist tolerance and stable shoulder support (active scapulae)

Progression 1 – Ground patterning

- Sit-through / hip-turn patterns on the floor (hands support, hips rotate)
- Compact “leg swing around” drills with strict shoulder control

Progression 2 – Low rail italian job

- Start from a stable straddle sit, hands set → small lift → tuck rotation → re-sit and stabilize
- Focus: smooth rhythm, no rushing, no shoulder collapse

Progression 3 – Build amplitude and cleanliness

- Increase the leg arc gradually
- Add exit options (re-balance, step-out, link to palmspin/balance)

Progression 4 – Full rail flare (extended)

- Extended legs and larger flare path while keeping the pelvis controlled over the rail
- Integrate into sequences (rail flare → balance → dismount, etc.)

Assistance and spotting

Assistance is usually not needed for the rail flare/italian job, especially when the rail is low and the setup is safe. In some cases, however, the coach can stand behind the athlete during early attempts to reduce the risk of the athlete falling onto the back. If additional support is required, the coach may provide light contact with one hand on the thoracic (upper back) area to guide posture and control

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the arc, or briefly support the athlete under the arms to assist the rotation and the exit. Any physical assistance should remain minimal and safety-focused—used only to help the athlete maintain control, complete the rotation cleanly, and avoid falling backward.

Most Common Mistakes:

- Passive shoulders / collapsing support - hips drop, rotation stalls, slipping risk increases.
- Trying extended flare too early - loss of control, uncontrolled swing, rail strikes.
- Center of mass drifting away from the rail - falling off backward or to the front side mid-rotation.
- Hands placed too narrow/unstable - wrist overload, poor steering of rotation.
- Leg swing “wild” instead of guided - excessive rotation or hitting the rail with shins/feet.
- No clean finish (no re-sit/support stabilization) - breaks flow and makes linking unsafe.

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PALM SPIN

Photo by: Miroslav Pečatnik

Movement description:

A palm spin is a rotational transfer performed over a rail, bar, or low wall in which the athlete pivots the body around a planted palms. The movement begins with a controlled approach on a clear line, with the athlete's eyes already tracking the intended exit and landing direction and the shoulders prepared to accept load. The athlete then places the palms firmly onto the obstacle as a stable pivot point, maintaining an active scapula and a braced trunk to avoid collapsing into the supporting arm. From this loaded position, the athlete takes off and initiates rotation by leading with the hips, allowing the torso to "wrap" around the pivot hands while staying organized and upright. Throughout the rotation the legs remain compact—most commonly in a tuck or semi-tuck—to ensure clean clearance over the obstacle and to limit unwanted rotation. As the body passes the obstacle, the hand on the opposite

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side of the rotation may subtly reposition or remove depending on the setup, creating space so the hips and legs can complete the turn without catching. The movement finishes with a quiet, aligned landing (or a controlled step-out) and immediate readiness to link into the next element in the line.

Main variations:

- 360° palm spin (standard): full rotation around the planted hand.
- Rail vs wall/box palm spin: grip, clearance, and hand positioning change with obstacle type and height.
- Reverse palm spin

Purpose and application:

The purpose of the palm spin is to create a fast directional change and a clean flow connecton on rails/walls without breaking rhythm.

Palm spin is used in freestyle/flow lines on rails and low walls to connect movements smoothly (e.g., run → palm spin → balance/step-out → next vault), and as a stylistic rotational option when going around the obstacle would be slower or less efficient.

Methodology of Learning:

Progression 1 – Patterning on the floor

- Hand-pivot turns on the floor (small radius), focusing on active shoulder and hip-led rotation
- 180° patterns first; emphasize “hips lead, trunk stays organized”

Progression 2 – Low obstacle with high safety

- Low box/rail with mats: palm plant, small rotation
- Build consistency in palm placement and body line before increasing rotation
- Progress to 360° only when the athlete can keep clearance and stability without rushing

Progression 3 – Rail-specific refinement and linking

- Practice hand change/regrip timing (so legs/hips never “block” the exit)
- Link into sequences: palm spin → balance/step-out → continuation
- Add approach speed gradually (one variable at a time)

Assistance and spotting

Assistance is usually not necessary for the palm spin. If support is needed, the coach may stand close and, during the entry into rotation, provide light grab on the mid-back or the hips while the athlete is turning. This minimal support can help the athlete complete the rotation and maintain the cor-

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rect body line by keeping the hips lifted and traveling around the obstacle, rather than dropping toward the rail/wall, which can stall the movement and stop the rotation prematurely.

Most Common Mistakes:

- Collapsing into the planted arm (passive shoulder) - loss of height, wrist overload, uncontrolled exit.
- Hand planted in a poor position (too far/too close/wrong angle) - blocked rotation or slipping.
- Trying 360° too early - rushed timing, rail contact, messy landings.
- Legs left open/loose - inconsistent clearance, unwanted rotation.
- Rotation driven by shoulders instead of hips - drifting off-line and unstable landing.
- No early landing spot - over/under-rotation.

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PISTOL SPIN

Photo by: Luka Pokupec

Movement description:

A pistol spin starts with a controlled approach toward the wall/obstacle. The athlete places both hands on the top edge, then uses a coordinated take-off and a strong two-hand push to unweight the body and initiate the rotation. Immediately after leaving the ground, the athlete lifts the leg opposite to the direction of rotation (e.g., rotating to the left → the right leg rises), while the other leg stays in contact with the wall on the lower side. As the lifted leg travels through a semi-circular path, the athlete removes the hand on the same side where that leg is passing, creating space and preventing any catching or blocking of the rotation. The remaining hand maintains support and guides the body through the final part of the turn. At the very end of the rotation, the athlete gives a light push with the hand that stayed on the wall (now positioned between the legs) to finish the rotation cleanly and step or drop into a controlled landing, ready to continue into the next movement.

Purpose and application:

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The purpose of the pistol spin is to create a fast, stylish directional change and flow connector over a wall while keeping the torso controlled and upright.

In practice, it is used in freestyle lines to add rotation and presentation without losing much speed, especially on walls where stepping around would be slower or visually weaker. It also appears in competition references as a recognized foundational skill.

Methodology of Learning:

Progression 1 – Ground rotation pattern

- 180° → 360° jump turns (spotting the landing)
- "Hip-lead" rotation drills: rotate from hips while keeping trunk organized

Progression 2 – box spin with two-hand support

- Low obstacle, practice the spin vault pathway with two hands for stability

Progression 3 – Introduce the pistol shape

- Add the pistol position mid-rotation (one leg extended, one leg tucked)
- Keep clearance compact and consistent—shape supports control, not "flash"

Progression 4 – One-hand emphasis + flow exits (advanced)

- Reduce to one-hand guidance where appropriate
- Train the timing so the exit is stable
- Link into sequences (pistol spin → sprint / precision / rail flow)

Assistance and spotting

Assistance is usually minimal if the obstacle is low and the landing zone is clear. Use mats early, and choose a rail with reliable grip (no sharp edges, no moisture). If needed, the coach can stand slightly behind and to the side to prevent a backward fall, offering light support at the upper back (thoracic area) or brief assistance under the arms—only to help the athlete keep posture, finish the rotation, and avoid falling onto the back.

Most Common Mistakes:

- Passive shoulders / collapsing on the supporting arm - unstable rotation, wrist overload, loss of control.
- Over-committing speed too early - rushed take-off, poor trajectory, messy landing.
- Rotation driven by throwing the shoulders (not hips) - uncontrolled spin, drifting away from the obstacle.
- Losing the pistol shape (legs open/loose) - inconsistent clearance and unpredictable timing.
- No hand adjustment - stuck rotation, awkward exit, falling backward.

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WALL SPIN

Photo by: Miroslav Pečatnik

Movement description:

A wall spin is a rotational, wall-based movement in which the athlete uses contact with the vertical part of the wall to redirect momentum and rotate the body through a full 360° turn before landing and continuing. The movement begins with a controlled approach on a clear line, with the athlete's eyes already set on the intended wall contact point and the exit direction. The athlete then jumps, places the hands on the wall at the correct height (head hight). From this position, the athlete initiates the rotation by leading with the hips, allowing the torso to follow as the hands on the wall acts as both a pivot and a guidance point. During the flight phase, the body stays compact and organized and legs pulled with the knees to the chest. As the rotation completes, the athlete releases the wall contact, spots the landing early, absorbs impact with controlled mechanics, and immediately connects into the

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next movement.

Purpose and application:

The purpose of the wall spin is to create a fast direction change and expressive rotational transition using a wall as a pivot.

Wall spins are used in freestyle lines to, maintain flow in wall-dense environments, and add rotational complexity without requiring a full aerial trick.

Methodology of Learning:

Progression 1 – Hand plant patterning

- Step-in to wall, hand plant, small body turn without full take-off
- Emphasis on hand height, and exit line

Progression 2 – Full 360° wall spin

- If possible, learning it on softer surface
- Do a rotation of 360° with compact body shape
- Add speed gradually; keep the line clean and upright

Progression 3 – Integration

- Wall spin → run-out
- Wall spin → precision
- Wall spin → vault link (advanced)

Assistance and spotting

Assistance is usually done in such a way that the coach stands slightly behind and to the side to prevent a fall on the head, holding the athlete by the hips to help keep the body upright and guide the rotation line.

If possible, use mats during learning, especially if the athlete is unsure about commitment.

Most Common Mistakes:

- Hand placed too low/high or at a bad angle - blocked rotation or slipping.
- Rotation driven by shoulders not hips - drifting, tilt, poor landing alignment.
- Dropping hips into the wall and hitting it with the feet - rotation stops and athlete “sticks” to the wall.
- Late landing spot - over/under-rotation.

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6.5 Basic acrobatic moves

FRONTFLIP

Photo by: Miroslav Pečatnik

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Movement Description

A frontflip is performed with a two-foot take-off from a short, fast run-up, coordinated with an arm swing from the arms-down position to an overhead position. The run-up is essential in order to generate a sufficient horizontal component of motion, which is then, during take-off, partially transformed into vertical lift and partly into rotational momentum. Throughout the take-off, the trunk remains compact by maintaining a slightly "drawn-in" chest position and a posteriorly tucked pelvic position.

At the very end of the takeoff, once the feet leave the ground, the arms continue their prior swinging motion in a circular trajectory—initially upword, then forward, and finally downward. At the same time, the body transitions into a tucked position by flexing from top to bottom, ensuring that all body segments rotate in the same direction—forward around the transverse axis. In this way, the arm swing catches up with the movement of the legs, allowing the athlete to firmly grasp the upper part of the shins with the hands. This sudden reduction in the radius of rotation produces a large increase in rotational speed, which is maintained for as long as the body remains in the tucked position.

Therefore, after completing the required portion of the rotation—and taking into account the achieved rotational speed and flight height—the athlete must open out of the tuck in time to prepare the body for a stable landing. Landing absorption is achieved primarily through the hip and knee joints, and for additional stability the arms are held diagonally forward and upward, slightly out to the sides.

Main variations:

- Standing frontflip (front tuck): minimal approach; higher demand on vertical set and timing.
- Running frontflip: uses approach speed to support projection; common in freestyle lines.
- Dive front / layout-like entry (advanced): longer horizontal travel; higher risk and stricter landing criteria.
- Platform frontflip (advanced): performed from a box/ledge into a certain landing zone.
- Frontflip with a take off from one leg – webster

Purpose and Application

The purpose of the frontflip in parkour freestyle is to provide a controlled forward-rotating acrobatic option that can be seamlessly integrated into movement lines while preserving rhythm, timing, and spatial flow. Rather than being used as a "max-risk" trick, the frontflip is trained and applied as a repeatable skill that supports clean landings and efficient continuation.

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Depending on a skill level o fan athlete, frontflip can be used in freestyle routines and lines as an acrobatic highlight or as a connector that adds variety and direction to the sequence. It can also serve as a transition element, for example linking a run directly into a frontflip and continuing into a run-out, or connecting out of a vault into a frontflip before flowing into the next technique.

Methodology of Learning

Prerequisites:

- Consistent landing mechanics (quiet landings, knees tracking, trunk control).
- Forward roll and ideally dive roll (for safe bailout options).
- Basic jump "set" mechanics (vertical lift with stable trunk; no head throw).
- Adequate ankle/hip mobility and tolerance for repeated take-offs/landings.

Progression 1:

- On the floor - fast tuck bringing upper body to the legs and catching shins
- Fast forward roll to learn how a rapid reduction of the radius of rotation increases rotational speed.
- Tuck jump drills: jump → quick tuck → open → land (no flipping yet), focusing on timing.

Progression 2:

- Half frontflip onto a soft mat from a standing take-off - learning the entry into rotation.
- Half frontflip onto a soft mat from a hop take-off - learning how to initiate rotation from short forward linear movement.
- Half frontflip onto a soft mat from a short run-up and hop take-off - Learning how to initiate rotation from forward linear movement.

Progression 3:

- Diving roll onto a raised surface, taking off from a mini-trampoline - learning the run-up and take-off in simplified, safe conditions.
- Half front somersault onto a raised surface, taking off from a mini-trampolin - learning the entry into rotation.
- Frontflip from a mini-trampoline, with assistance.
- Frontflip from a springboard with and without assistance

Progression 4:

- Frontflip from a platform/box into a protected landing.
- Linking into other techniques only when landing is reliably controlled (e.g., frontflip → step-out → run / vault).
- Increase difficulty by changing one variable at a time (height OR speed OR distance).

Assistance and Spotting

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Assistance is provided while standing to the side and slightly in front of the take-off point. Just before the end of the take-off, the arm that is closer to the athlete places the palm on the athlete's abdomen. After take-off and once part of the rotation has been initiated, the farther arm from the athlete is placed onto the athlete's back. The role of the nearer hand (the one on the abdomen) is to ensure sufficient flight height, while the other hand (the one on the thoracic part/upper back) helps ensure enough rotation.

Most Common Mistakes

- Throwing the head/chest forward too early - low set, loss of height, rushed rotation, dangerous landing.
- Insufficient, soft and/or slow take-off - insufficient height and rotation.
- The arm swing during take-off is directed downward - insufficient height.
- Low take-off angle (insufficient height)
- A trunk swing from an arched position that causes the legs to move in the direction opposite to the rotation - slow rotation
- Failure to grasp the knees, head not tucked, straight back, and an insufficiently tucked body position during the flight phase - slow rotation
- A trunk swing from an arched position that drives the legs in the opposite direction of rotation - slow rotation.
- Tucking too late / too loosely - slow rotation, under-rotation.
- Opening too early - stops rotation and causes under-rotation.
- Opening too late - over-rotation or uncontrolled landing.
- Twisting unintentionally (asymmetrical arm swing or hip position) - off-axis landing risk.

Reference:

Hraski, Ž. (2025). *Salto naprijed – Predavanje* [PDF]. Sveučilište u Zagrebu, Kineziološki fakultet. Preuzeto *9. rujna 2025.*, s https://moodle.srce.hr/2024-2025/pluginfile.php/10973612/mod_resource/content/1/SALTO%20NAPRIJED%20-%20Predavanje.pdf

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BACKFLIP

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Photo by: Miroslav Pečatnik

Movement Description

The basic variation of the back somersault is performed from a standing take-off. The take-off is executed from a slight squat and is accompanied by a coordinated, powerful arm swing upward into an overhead position. At the end of the take-off, this arm swing is blocked diagonally forward and upward, which—through the principle of momentum transfer—further enhances the take-off and, together with a slight shift of balance backward, contributes to generating rotation. At the end of the take-off, the head is in a slight tucked position. After the feet leave the ground, the arms and trunk continue to rise while the body simultaneously rotates backward. At the same time, the legs are lifted with the knees bent so that, in the central part of the rotation, a firm tucked body position is achieved by grasping beneath the knees. In this way, the radius of rotation is reduced and the required rotational speed is obtained. After completing most of the rotation, taking into account the achieved rotational speed and flight height, the hands release the shins and the tucked position is opened in order to prepare the conditions for a stable and safe landing in time. After releasing the knees, the arms are lifted diagonally forward and upward, thereby further contributing to landing stability.

Main variations:

- Round-off Back Tuck
- Back Handspring to Back Tuck
- Cartwheel / Aerial Entry to Back Tuck (more freestyle-specific)
- Back Pike (piked position)
- Back Layout (straight body / layout)
- Double and triple backflip
- Backflip 180 (half twist)
- Backflip Full (full twist / 360°)
- Double Full (double twist / 720° — advanced)

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Purpose and Application

The purpose of the backflip is to develop the athlete's ability to produce and control a backward aerial rotation while maintaining precise body alignment, spatial awareness, and a safe, stable landing.

In parkour, the backflip is applied as a dynamic acrobatic element within freestyle lines and movement combinations, where it adds rotational content and flow. In addition, it provides a technical foundation for more advanced skills such as layouts, twisting backflips, and combination sequences, while refining timing and control throughout the entire movement—from take-off, through rotation and opening, to landing and immediate continuation of movement.

Methodology of Learning

Prerequisites:

- strong vertical two-foot take-off and consistent landing mechanics,
- good trunk control (core bracing), knee and ankle stability,
- basic spatial orientation and fundamental rolling skills.

Progression 1:

- Fast tuck on the floor by pulling legs to the chest and catching just under the knees
- Take-off simulation - learning the vertical two-foot take-off (even with the coach holding the athlete just under the scapulas while in the air)

Progression 2:

- Half backflip onto an elevated surface - learning the take-off and the entry into rotation
- Half backflip onto an elevated incline surface - learning the take-off while performing a full rotation under assisted and safe conditions

Progression 3:

- Backflip from a small trampoline with assistance
- Gradual reduction of assistance while maintaining identical technical quality.

Progression 4:

- Transition from thick mats to a harder surface
- Backflip to a marked landing zone - define a "landing box/zone" and require the athlete to land inside it (control of line and direction, minimal travel).
- Backflip from a platform to the ground (controlled drop + set + rotation, no rushing into the tuck),
- Backflip between two platforms with very gradual increases in distance
- Introducing landing/exit variations - landing to stick, then step-out (immediate take-off into the next movement), all with strict trunk and knee control

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Progression 5:

- Linking with other elements (from simple to complex) - (e.g. precision landing – backflip – kong)

Assistance and Spotting

Assistance is provided while standing to the side and slightly behind the take-off point. Just before the take-off, the farther hand is placed on the athlete's back. This also serves as a signal that the athlete may begin the take-off. The hand is then moved away so it does not interfere during take-off, and toward the end of the take-off it returns to the same position, with the aim of preventing excessive backward trunk lean and directing the body's movement upward.

After take-off and the initial part of the rotation, the second (nearer) hand is added and placed under the hips. The primary task of this hand is to ensure sufficient body rotation necessary for successful execution of the somersault. Near the end of the first phase of rotation, when the body is inverted (head facing downward), the hands release the athlete. After the athlete opens out of the tucked position, in preparation for landing, the farther hand is placed on the athlete's back again, with the aim of preventing unwanted excessive backward rotation and a backward fall onto the back after landing.

Most common mistakes:

- Slow, insufficiently efficient take-off
- Low take-off angle
- The arm swing during take-off is stopped too early
- Tucking the chest in at the end of the take-off - a fall onto the upper back, neck, or head.
- Pulling the legs in too late; no knee grab - insufficient height and rotation

Reference:

Hraski, Ž. (2025). *Salto natrag – Predavanje* [PDF]. Sveučilište u Zagrebu, Kineziološki fakultet. Preuzeto 9. rujna 2025., s https://moodle.srce.hr/2024-2025/pluginfile.php/10973619/mod_resource/content/1/SALTO%20NATRAG%20-%20Predavanje.pdf

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SIDEFLIP

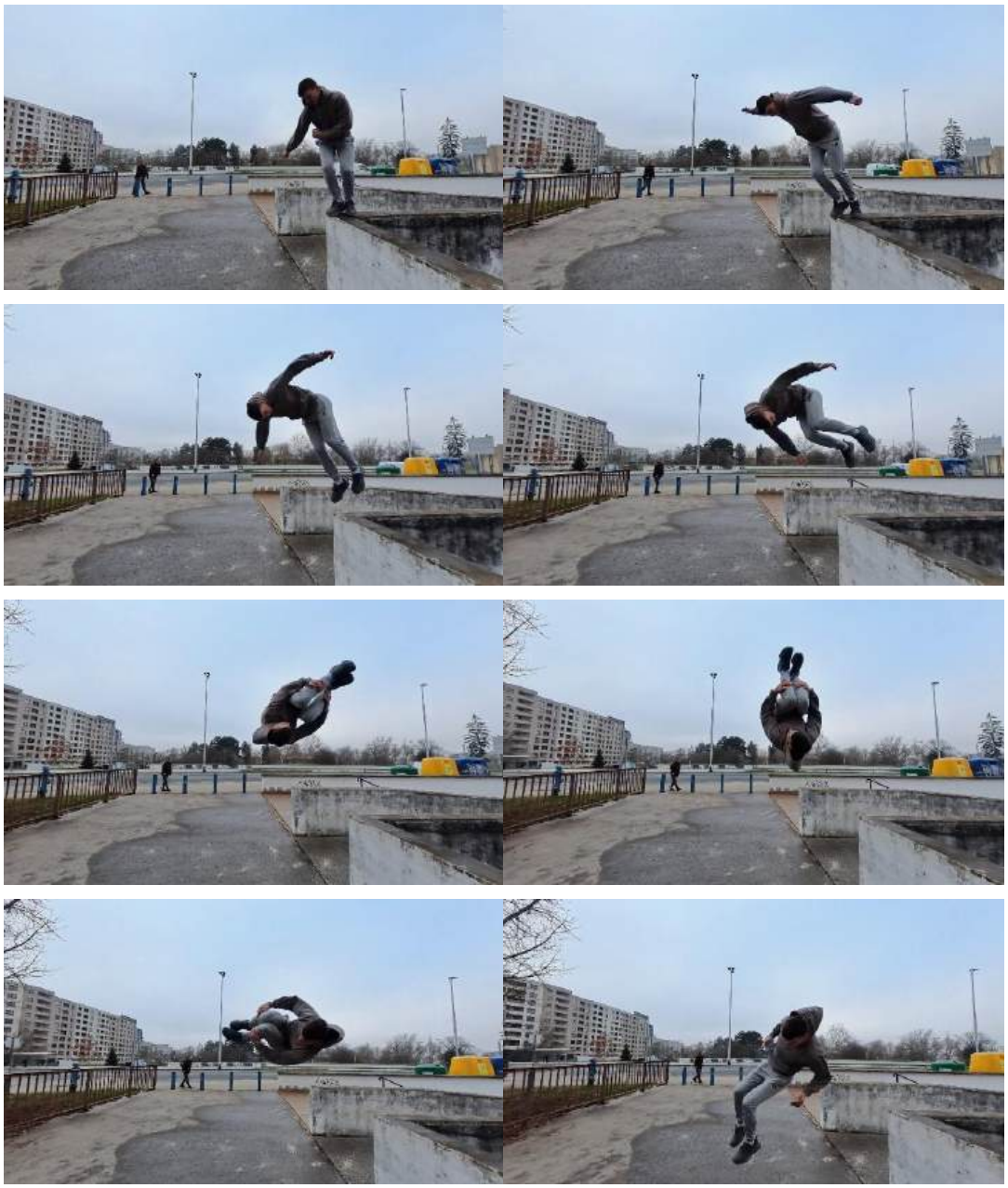

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Photo by: Miroslav Pečatnik

Movement Description

A sideflip is performed with a two-foot take-off from a short run-up (or from a standing start), coordinated with an arm action in which the arm on the side of rotation lifts upward into a lateral overhead position, while the other arm swings backward and upward to assist rotation. A run-up is not strictly necessary, but during the learning process (and often later as well) it makes the skill significantly easier to perform. The run-up helps generate a sufficient horizontal component of motion, which is then, during take-off, partially transformed into vertical lift and partly into rotational momentum.

During take-off, the ar min the direction of the flip and the body are extended. At the very end of the take-off, after the feet leave the ground, the arms continue the swing in a circular pathway—one arm from extended upward and forward position is being pulled downward, and the other directed backward and upward. At the same time, the body transitions into a tucked position by flexing from top to bottom, ensuring that all body segments rotate in the same direction—laterally, around the sagittal axis. In this way, the arm swing “catches up” with the motion of the legs, allowing the athlete to firmly grasp the upper part of the shins with the hands. This rapid reduction of the radius of rotation produces a significant increase in rotational speed, which is maintained for as long as the tucked position is held.

Therefore, once the required portion of the rotation has been completed—and considering the achieved rotational speed and flight height—the athlete after spotting the ground/landing spot must open out of the tuck in time to prepare for a stable landing. Landing absorption is achieved primarily through the hip and knee joints.

Purpose and Application

The purpose of the sideflip is to teach the athlete how to generate and control a lateral aerial rotation while maintaining a clear sense of body position in the air and executing a safe, stable landing.

In parkour, the sideflip is used as a dynamic acrobatic element within freestyle lines and flow-

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based combinations, adding variety and expressiveness to movement sequences. It expands the athlete's rotational repertoire beyond forward and backward flips and improves coordination, timing, and air awareness specifically in sideways rotation. At the same time, it serves as an important technical foundation for more advanced lateral-rotation skills and directional combinations, and it provides a practical stylistic option when a movement line benefits from a lateral body orientation or an integrated change of direction.

Methodology of Learning

Prerequisites

- consistent landing mechanics (soft, stable, no knee collapse),
- strong vertical take-off and core control,
- basic acrobatics and spatial awareness (rolls, cartwheel mechanics),

Progression 1:

- lateral jumps with arm swing (focus: upward set, not sideways "throw"),
- "barrel-roll" style drills on soft thick mats approximately at hip height (learning sideways rotation timing).

Progression 2:

- "barrel-roll" on the same thick mat but now with a jump
- "barrel-roll" on the higher obstacle (approximately shoulder height) – take-off and arms swing practice
- "barrel-roll" over the same obstacle with a short run-up and take-off

Progression 3:

- Changing the "barrel-roll" into sideflip over the obstacle
- Sideflip from a bit higher position (approximately hip height) down on the soft mat
- Sideflip at the ground level – with and without assistance to the soft mat

Progression 4:

- standing sideflip on a large, safe landing zone,
- a short step-in entry (one-step) once consistency is high,
- gradually reduce padding only when technique remains clean.

Progression 5:

- Moving to hard surface
- Sideflip to a marked landing zone (control travel and alignment),
- Sideflip to stick - to step-out - to another acrobatic element
- link with simple elements first (precision - sideflip, roll - sideflip, basic vault - sideflip) once

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landings are stable and repeatable.

- Linking it with more complex movement and more acrobatic elements from and to different obstacles and heights

Assistance and Spotting

Spotting is recommended during the early stages of learning the sideflip and whenever training conditions become more demanding—such as increasing height, increasing entry speed, or reducing the amount of matting. In most cases, the coach positions on the landing side and slightly toward the athlete's rotational side so they can intervene immediately without blocking the athlete's take-off or flight path.

During the execution, the coach is prepared to support the athlete at the hips or lower back to encourage a strong upward set and reduce the likelihood of under-rotation. If needed, the coach can also guide the upper back and shoulder line to keep the rotation clean and lateral, helping prevent the athlete from unintentionally adding twist. The goal of spotting is not to "carry" the athlete through the movement, but to assist just enough to maintain correct axis, timing, and a safe landing—especially by encouraging an appropriate opening phase so the athlete contacts the ground under control.

Most Common Mistakes

- Throwing sideways instead of setting upward - low trajectory, increased risk of under-rotation.
- Insufficient take-off - not enough height to perform, bad landing (deep squat position or falling)
- Insufficient tuck (slow knee lift / loose shape) - rotation too slow to complete safely.
- Opening too early - under-rotation and unstable landing.
- Opening too late - over-rotation and falling to the side/back.
- Head and torso misalignment - loss of axis control and inconsistent rotation.
- Unwanted twist - athlete rotates and twists simultaneously, losing the clean sideflip pathway.
- Excessive travel - drifting too far sideways/forward, reducing landing accuracy and safety.

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6.6 Flow combinations

Flow combinations are linked sequences of movements performed with continuous rhythm and minimal loss of momentum. Instead of treating each skill as a separate action, the athlete connects entries, transitions, and exits so that every landing, catch, or support position immediately becomes the set-up for the next element. A quality flow combination is defined by clean lines of travel, efficient body shapes, and consistent timing—maintaining control while moving smoothly through changes of direction, height, and contact points (ground, walls, rails, bars). In practice, flow combinations are used to develop movement continuity, spatial awareness, and decision-making, and they form the structural "glue" of freestyle lines and creative route building.

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7. ANNEXES

7.1 FIG Scoring Tables *(external link)*

- http://www.gymnastics.sport/site/rules/#14
- **FIG Rules (Parkour repository):**

https://www.gymnastics.sport/site/rules/#9

- **PK Code of Points 2025–2028 (PDF):**

https://www.gymnastics.sport/publicdir/rules/files/en_1.1%20-%20PK%20Code%20of%20Points%202025-2028.pdf

- **PK Specific Judges' Rules 2025–2028 (PDF):**

https://www.gymnastics.sport/publicdir/rules/files/en_1.3%20-%20PK%20Specific%20Judges%27%20Rules%202025-2028.pdf

7.2 Training Plan Examples

Single-Session Training Plans – Kids, Juniors, Seniors

Focus: kong-based skill development and speed-course application

KIDS (approx. 60 min) – Skill development: Kong Vault

Section	Content	Organization / dosage	Time
Warm-up	Light running + playful movement (follow the leader, tag variations)	Whole group, low intensity; gradual increase in pace	10 min
Mobility & activation	Ankles/hips + wrists/shoulders; core activation (dead bug, plank holds)	2 rounds: 6-8 drills x 20-30 s	6 min
Landing prep	Quiet landings from low height; small jumps forward with stick + step-out	3 x 5 low drops + 2 x 6 small jumps	6 min
Main block: learn the kong	Progression: (1) frog jump on floor (hands forward, knees high) (2) kong to squat on a low obstacle (hands absorb, hips travel forward) (3) kong over lower obstacle with	Stations (5 min each) x 3-4; 4-6 reps per station; full rest as needed	15 min
Combination (new + known)	Simple line: run-in - kong (low) - drop landing or step-out - short sprint	5-7 clean runs per child; focus on rhythm (not time)	12 min

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Game / challenge	“Clean run” challenge: quiet landing + clean kong (technique wins)	2 attempts each; coach selects safe lane	5 min
Cool-down + stretching	Easy walk, breathing; calves/quads/hamstrings/hip flexors + wrists/forearms	6-7 positions x 20-30 s	6 min

JUNIORS (approx. 75 min) – Compose speed with Kong technique

Section	Content	Organization / dosage	Time
Warm-up	Jog + mobility (ankle/hip) + dynamic drills (A-skip, fast feet), core activation, neuromuscular activation	5 min jog; build intensity gradually, 3 x 12-15, 2 sets of 3 different core workouts, 2-3 exercises of proprioception	12 min
Sprint mechanics primer	2-3 build-ups (60-80-90%); focus on posture and rhythm	3 x 20-30 m, full walk-back rest	8 min
Kong technique (efficiency)	Kong entries with marked take-off distance; fast hand placement; compact knee tuck; clean push-off	4-6 sets of 2-3 reps	15 min
Main block: speed + kong on course	Speed course runs that include one kong section (fixed obstacle)	6-8 runs at 80-95%; rest 2-3 min; timing optional for last 2 runs	20 min
Technique under fatigue – kong at the end (controlled)	Short timed section OR 10-12 s effort including kong; full recovery	3-4 reps; rest 3-4 min	8 min
Accessory (optional)	Core + scapular stability (hollow hold, scap pulls)	2 rounds x 30-40 s each	5 min
Cool-down + stretching	Breathing + lower limb and wrist stretches	6-7 positions x 20-30 s	7 min

SENIORS (approx. 75 min) – Kong combinations at speed + linking techniques

Section	Content	Organization / dosage	Time
Warm-up	Run + core activation, neuromuscular activation + mobility (ankle/hip/T-spine) + wrists/shoulders	6 min run; 3 x 12 to 15 reps, 3 sets of 3 different core workouts, 2-3 exercises of proprioception	12 min
Activation + plyo primer	Low-volume plyo: pogo jumps, bounds; plus 2 build-up sprints	3 x 10 pogo + 2 x 20 m build-ups; full rest	8 min
Kong variants (technical)	Block A: standard kong for speed (short contact) Block B: kong to precision OR kong to step-out Block C: dive kong entry (longer flight) on a safe setup	3 blocks x 4 min; 3-5 quality reps per block; full rest	16 min

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Main block: high-speed combinations	Course segments linking kong in different ways (e.g., speed vault - kong - underbar/run-out; kong - precision - sprint; kong - drop landing/roll)	6-10 runs; 90-95% quality; rest 2-4 min; last 2 runs can be timed	24 min
Optional advanced set	Double kong on a long obstacle OR obstacle-to-obstacle kong (same or different heights)	3-4 attempts; full recovery	8 min
Cool-down + mobility	Easy run/walk + mobility (hips/ankles/ T-spine) + stretching	6-7 positions x 20-30 s	7 min

Freestyle Session Plans – Backflip Focus (Kids, Juniors, Seniors)

Safety note: all backflip work must be coached and performed in a controlled setup (crash mats/foam pit where available). Progress only when criteria are consistently met.

KIDS (approx. 60 min) – Learning a backflip + simple course application

Section	Content	Organization / dosage	Time
Warm-up	Jog + playful locomotion (tag / some other dynamic game)	Whole group; low intensity, gradually increasing	6 min
Mobility & activation	Ankles/hips + wrists/shoulders; core activation (hollow/arch basics, plank, fast sit-ups)	2 rounds: 6–8 drills x 20–30 s	8 min
Landing & safe falling prep	Quiet landings (low) + roll review (only if roll is already learned)	3 x 5 low drops + 2 x 5 small jump-to-landing	8 min
Backflip prerequisites	Jump and 'set' mechanics: tall posture, fast arms, strong take-off; rebound jumps, fast tuck	3–4 sets: 4–6 jumps; full rest	10 min
Main block: backflip learning	Backflip progressions on a controlled landing (crash mats/soft landing; spotting as needed)	Small groups; 6–10 coached attempts each; full rest + feedback	15 min
Course integration	Simple course: run-in → easy vault/step → backflip at the mat station → run-out	4–6 clean runs per child; focus on flow, not speed	10min
Cool-down + stretching	Breathing + stretching: calves/quads/ hamstrings/hip flexors + wrists	6 positions x 20–25 s	5 min

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JUNIORS (approx. 75 min) – Backflip refinement + course application

Section	Content	Organization / dosage	Time
Warm-up	Run + mobility (ankle/hip/T-spine) + wrists/shoulders; dynamic drills, core activation, on the ground - fast leg pulls to the chest	6 min run; 3 x 12 to 15 reps, 3 sets of 3 different core workouts, 2-3 exercises of proprioception, 3 x 6 fast leg pulls	12 min
Plyo / set quality	Low-volume plyo primer: pogo jumps + rebound jumps (vertical focus)	3 x 10 pogo + 3 x 4 rebound jumps; full rest	8 min
Main block: Backflip technique block	Refine set + rotation timing; consistent take-off and landing mechanics with and without mats	6–10 high-quality attempts; full recovery; video/feedback if available	20 min
Platform application	Backflip from a stable platform/box to a safe landing (same height or slightly lower)	4–6 attempts; full rest; increase only if consistent	12 min
Link to another technique	Example link: platform backflip → controlled landing → precision OR stride → run	4–6 sequences; moderate speed; clean transitions	10 min
Cool-down + stretching	Breathing + lower-limb and wrist stretches	6–7 positions x 20–25 s	5 min

SENIORS (approx. 75 min) – Backflip on smaller surface/height + linked acrobatics in a freestyle course

Section	Content	Organization / dosage	Time
Warm-up	Run + mobility (ankle/hip/T-spine) + wrists/shoulders; build-ups, dynamic drills, core activation, on the ground - fast leg pulls to the chest	6 min run; 3 x 12 to 15 reps, 3 sets of 3 different core workouts, 2-3 exercises of proprioception, 2 x 6 fast leg pulls	12 min
Activation / readiness	Plyo primer (low volume) + core activation, on the ground - fast leg pulls to the chest + backflip 'set' checks	2 x (10 pogo + 3 set jumps); 3 x 6 fast leg pulls, 3 x 4 backflips	8 min
Main block: backflip precision	Backflip on a smaller landing surface (e.g., narrow box) with controlled setup, then immediate stabilization	6–8 attempts; full rest; strict quality criteria	15 min
Freestyle combinations	Course segments combining backflip variations at speed + linking techniques (e.g., narrow-box backflip → step-out → kong/underbar → another flip or move)	6–10 runs; 90–95% quality; rest 2–4 min	25 min
Advanced acro link	Example: backflip on a narrow box → sideflip down to the ground → immediate run-out into another move	3–5 attempts; full recovery	10 min
Cool-down + mobility	Easy jog/walk + mobility + stretching	6–7 positions x 20–25 s	5 min

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Weekly Training Plan (Mon–Wed–Fri) – Speed Development on an Obstacle Course (Kids)

Day	Main focus	Warm-up (10–12 min)	Technical block (15–20 min)	Main block: speed course (15–20 min)	Game / finishing block (5–8 min)	Cool-down (5–8 min)
Monday	Acceleration + technical base (start, rhythm, clean contacts)	Light running + mobility (ankle/hip/shoulder) + 2–3 short "quick feet" games	Stations: 1) Drop landing "quiet" (low) 2) Speed vault (low obstacle) 3) Precision to a wider surface	5–7 runs through the course at 70–85%; rest 60–120 s. Focus: no stumbling, no extra steps.	2–3 short relays: "clean run" (do not chase time)	Easy walk + stretching: calves/quads + hams; wrists
Wednesday	Rhythm and flow (linking, change of direction)	"Follow the leader" + lateral movement + short direction changes	Stations: 1) Stride across 2–3 platforms 2) Turn vault/demi-tour (low) or step vault 3) Slalom + entry/exit angles	6–8 runs through the course at 75–90%; rest 90–150 s. Focus: rhythm, eyes forward, stable landings.	"Choose your line" – kids choose 2 safe route variants	Breathing + hip/ankle mobility + light stretching
Friday	Quality at higher speed + mini test	Short warm-up + 2–3 build-up runs (gradual acceleration)	Quick refresh: repeat 2 key stations from the week (e.g., speed vault + precision), low reps	2–3 timed attempts (or a timed section only) + 3–5 technical runs. Focus: time is secondary; technique first.	Mini challenge: "quietest run" or relay with a "no risk" rule	Cool-down + stretching + short recap (what was done best)

Week to week progress:

Week 1: more technique; course runs at 70–80% (fewer runs, more rest).

Week 2: add +1 run in the main block or increase speed slightly (80–85%).

Week 3: add one "fast section" of the course (e.g., 10–15 s) with full rest.

Week 4: a small "test" (2–3 attempts) + return to clean technique and stability.

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Preparatory Period – Microcycles (Juniors & Seniors)

One microcycle for Speed and one for Freestyle for each category.

Prep-phase focus: build capacity and repeatable technique first. Progress only when quality criteria are consistently met.

Seniors include double-days on Monday, Tuesday, Thursday and Friday (AM/PM).

JUNIORS – SPEED (Preparatory Microcycle) | Weekly Plan

Day / Session	Key focus	Main content (examples)	Load	
			Volume	Intensity
Mon	Strength foundation + core	Full-body strength (squat/hinge/pull/push); scapular control; core anti-extension/anti-rotation; 6 exercises, 3 x 15 reps; hamstrings curl, dumbbell squat, dumbbell split squat, push-up, pull-up, sit-up, rubber band anti-rotational exercises	70 min	Moderate
Tue	Acceleration + landing mechanics	Warm-up + mobility; sprint drills (A-skip/fast feet); 4–6 x 20 m accelerations; landing quality (quiet contacts) + basic vault exits	70 min	Submaximal
Wed	Active recovery + mobility	Easy aerobic 15–25 min; mobility (ankle/hip/T-spine); balance/rail basics; light stretching	60 min	Low
Thu	Strength foundation + core	Full-body strength (squat/hinge/pull/push); scapular control; core anti-extension/anti-rotation; ; 6 exercises, 3 x 15 reps; hamstrings curl, dumbbell squat, dumbbell split squat, push-up, pull-up, sit-up, rubber band anti-rotational exercises	70 min	Submaximal
Fri	Speed course intensity (controlled)	6–10 runs at 80–95% quality; optional 2 short timed sections	70 min	Submaximal
Sat	Capacity + movement economy	Repeated efforts: 6–10 x 10–12 s course segments with full rest; focus on clean technique and efficient transitions	70 min	Moderate
Sun	Rest	Off / optional easy walk		

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JUNIORS – FREESTYLE (Preparatory Microcycle) | Weekly Plan

Day / Session	Key focus	Main content (examples)	Load	
			Volume	Intensity
Mon	Strength + mobility	Warm up + Strength foundation (full body) + technique + mobility; 6 exercises, 3 x 15 reps; hamstrings curl, dumbbell squat, dumbbell split squat, push-up, pull-up, sit-up	70 min	Moderate
Tue	Acro basics + safe landings	Warm-up; landing & roll review (if already learned); set-quality jumps; acro fundamentals in controlled setup (mats); short combo rehearsal	60 min	Submaximal
Wed	Recovery + creativity (low risk)	Easy aerobic + mobility; low-risk rail/balance; creative task: build 2 simple lines (no high risk)	60 min	Low
Thu	Skill blocks: kong + transitions	Kong technique (efficiency + clean exits); precision landings; underbar links; acrobatics; compose 5 short lines	70 min	Submaximal
Fri	Freestyle combos (structure + performance)	2–3 planned lines; repeatability focus; film 1–2 clean runs; technical corrections	70 min	Submaximal
Sat	Strength + mobility	Warm up + Strength foundation (full body) + technique + mobility; 6 exercises, 3 x 15 reps; hamstrings curl, dumbbell squat, dumbbell split squat, push-up, pull-up, sit-up + rubber band anti-rotational exercises	70 min	Moderate
Sun		Rest		

SENIORS – SPEED (Preparatory Microcycle) | Weekly Plan

Day	Time	Key focus	Main content (examples)	Load	
				Volume	Intensity
Mon	AM	Strength (lower body)	Strength foundation; 4 exercises, 4 x 8-10 reps; hamstring curls, squat, trap bar deadlift, split squat	90 min	Submaximal
	PM	Complex training	4 different setups and 3 x 3 runs on each	60 min	Moderate
Tue	AM	Aerobic training	20 min run, global exercises for whole body	70 min	Moderate
	PM	Technique, obstacles	Outside training technique on walls with adding speed to it	60 min	Submaximal

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Wed	AM	Strength (upper body)	Strength foundation; 6 exercises, 4 x 8-10 reps on Olympic bar bench press, weighted pull-ups, dumbbells incline bench press, Olympic bar rowing; 3 x 8 reps on unilateral dumbbell bench press, unilateral dumbbell rowing	90 min	Submaximal
	PM	Technique, obstacles	In the gym specific drills on 3 - 4 different setups in speed	60 min	Submaximal
Thu	AM		Rest		
	PM	Speed, agility, quickness, explosive power	Exercises for direction changes, explosive power drills, reaction time, plyometrics	90 min	Submaximal
Fri	AM	Aerobic training	20 min run, global exercises for whole body	60 min	Moderate
	PM	Technique, obstacles	In the gym specific drills on 4 - 5 different setups in high speed	70 min	Moderate
Sat	AM	Technique	Learning details of certain technical moves and applying some speed to it	60 min	Submaximal
	PM	Strength + mobility	Strength + mobility; 6 exercises, 3 x 10 reps; squat, split squat, Olympic bar bench press, pull-ups, dumbbell shoulder press, med-ball throws	70 min	Submaximal
Sun	AM		Rest		
	PM	Aerobic exercises, relaxation	Active rest, low intensity running 20 min, stretching and relaxation	60 min	Low

SENIORS – FREESTYLE (Preparatory Microcycle) | Weekly Plan

Day	Time	Key focus	Main content (examples)	Load	
				Volume	Intensity
Mon	AM	Strength (lower body)	Strength foundation; 4 exercises, 4 x 8-10 reps; hamstring curls, squat, trap bar dead-lift, split squat	90 min	Submaximal
	PM	Complex training	4 different setups and 3 x 3 runs on each – adapting same tricks to different setup	60 min	Moderate

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Tue	AM	Aerobic training	20 min run, global exercises for whole body	60 min	Moderate
	PM	Technique, obstacles	Outside training technique of learned tricks to get used to hard surfaces and fear	60 min	Submaximal
Wed	AM	Strength (upper body)	Strength foundation; 6 exercises, 4 x 8-10 reps on Olympic bar bench press, weighted pull-ups, dumbbells incline bench press, Olympic bar rowing; 3 x 8 reps on unilateral dumbbell bench press, unilateral dumbbell rowing	90 min	Submaximal
	PM	Technique, obstacles	In the gym specific drills on 3 - 4 different setups trying different tricks on different setup, 90 sec run	70 min	Submaximal
Thu	AM		Rest		
	PM	Agility, explosive power	Exercises for direction changes, explosive power drills, plyometrics	90 min	Submaximal
Fri	AM	Aerobic training	20 min run, global exercises for whole body	60 min	Moderate
	PM	Technique, obstacles	In the gym specific drills on 4 - 5 different setups – 45 - 60 sec run	60 min	Moderate
Sat	AM	Technique	Learning details of certain technical moves and applying more power to the movement and connections	60 min	Submaximal
	PM	Strength + mobility	Strength + mobility; 6 exercises, upper and lower body 3 x 10 reps; squat, split squat, Olympic bar bench press, pull-ups, dumbbell shoulder press, med-ball throws	90 min	Submaximal
Sun	AM		Rest		
	PM	Aerobic exercises, relaxation	Active rest, low intensity running 20 min, stretching and relaxation	60 min	Low

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7.3 Safety Checklist – Before & During Training

7.3.1 Environment & Obstacles

- Check surface (and type of the material it is from) for being potentialy slippery (wood, concrete, marble, iron… rain, dew, ice, sand, dust, leaves) and adapt to it
- Check obstacles for stability and material (no wobble, no loose parts, not easily broken)
- No sharp edges, broken glass, holes, exposed bolts/wires
- Adequate space for approach and exit (run-in / run-out), no blind zones or adapt to it
- Landing zones are clear and even (no stones, puddles, uneven ground) or train to adapt to it
- Heights and distances match the group's level or the level of the athlete

7.3.2 Weather Conditions (Outdoor)

- Weather check: rain/wind/cold/ice risk
- Conditions do not compromise grip and landing safety
- Plan B ready: regressions, **adaptations of the movements** to certain conditions or relocation to a safer area

7.3.3 Equipment & Safety Setup

- Mats/crash mats placed where needed (learning, height, acrobatics)
- All equipment checked for stability (boxes, rails, platforms, bars)
- Chalk available if needed; footwear is appropriate (traction, laces tied)
- Remove jewellery; clothing checked (hoods/strings that can interfere)

7.3.4 Space Rules & Group Organization

- Clear lanes: approach–exit, waiting area, landing zone, return path
- One athlete at a time in the attempt zone; others stay outside risk area
- Agreed order and movement direction (no collisions) if not being decided differently on purpose
- Communication cues: "clear / go / stop" (including for spotters)

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7.3.5 Athlete Readiness

- Quick check-in: pain, injury, fatigue, dizziness, fear/stress
- Proper warm-up completed (joints, neuromuscular activation, proprioception, progressive jumps/landings)
- High-risk skills only when the athlete is fresh
- “No-go” rule: if form breaks down or fear rises → regress or stop

7.3.6 Progression & Criteria (Risk Management)

- Prerequisites met (landing/roll, grip, scapular control, etc.)
- Increase only one variable at a time (height OR speed, OR distance)
- Clear success criteria (e.g., 3–5 clean reps before progressing)
- Regressions prepared (lower height, slower entry, more mats, simpler version)

7.3.7 Spotting & Coach Assistance

- Spotting used only when appropriate and safe (especially for acrobatics)
- Coach/spotter position and contact points are clear (hips/torso, not hands)
- If the coach must frequently “save” attempts → progression is too hard

7.3.8 Emergency Basics

- Phone available; location/address known
- Basic first-aid kit available (plasters, bandage, cold pack/gel)
- Emergency plan agreed: who calls, who secures the area

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