



NEURO-ATHLETICS GUIDE

neuroVIZR

"A BRAIN THAT CAN CHANGE WHEN CHANGE IS
REQUIRED IS A HEALTHY BRAIN"

Garnet Dupuis

CONTENT

INTRODUCTION	5	STRUCTURED ROUTINES	59
Training Phase for Brain Function & Cognitive Endurance.	8	Rest & Repair Cycle	60
Pre-Performance Phase for Brain Optimization.	9	Reset Sleep Schedule	62
Post-Performance Phase for Brain Recovery	9	Core Brain Structuring	64
TRAINING PHASE – NEUROLOGICAL TRAINING	11	Habit Buster #1	66
TRAINING PHASE – PSYCHOLOGICAL TRAINING	17	Habit Buster #2	67
TRAINING PHASE – UNSTICK STUCK TRAINING	25	Habit Buster #3	68
PRE-PERFORMANCE	35	Habit Buster #4	69
POST-PERFORMANCE	49	Habit Buster #5	70
		Day Before the Event	72
		Evening After the Event	73



INTRODUCTION

Sports medicine is not limited to physical conditioning; it also encompasses the **brain's essential** role in athletic performance. Enhancing **cognitive function**, building mental adaptability, and maintaining brain health are integral to maximizing an athlete's overall abilities.

We must remember that **our brain is as physical** as our **heart, spine, and hamstring** muscles—its well-being is fundamental to peak athletic performance.

In sports medicine, **training the brain** is as crucial as training the body. From **sharpening cognitive skills** and **mental focus** during training to enhancing **concentration** under competition pressures and supporting a **balanced recovery** process, maintaining brain health is pivotal to an athlete's success.

Through carefully designed **mental exercises, neurophysiological training**, and targeted **recovery techniques**, sports medicine seeks to optimize both **physical and mental performance**, ensuring **sustainable cognitive health** and **adaptability** that contributes to resilience over time.

In the following, we'll explore how sports medicine applies to **brain health** and function within the key stages of an athlete's journey: **training, pre-performance, and post-performance**. This overview will illustrate how athletes can **leverage brain training** for strategic advantage, manage stress responses before an event, and foster **recovery practices** that protect and sustain their **mental edge** in both the short and long term.



TRAINING PHASE FOR BRAIN FUNCTION & COGNITIVE ENDURANCE.

Training the brain in sports medicine focuses on enhancing cognitive skills and brain efficiency. This involves:

- **Neuroplasticity Training:** Using targeted exercises to strengthen neural connections involved in focus, reaction time, and decision-making.
- **Cognitive Skills Training:** Programs that enhance memory, attention, and processing speed, which are crucial for making rapid decisions during sports.
- **Motor Learning and Coordination:** Mind assisted drills that improve brain-body communication, especially for sports that require fine motor skills and precise timing, help athletes achieve better control over their movements.
- **Mental Resilience Training:** Developing mental toughness through mindfulness, meditation, and breathing techniques to improve emotional regulation and stress management.
- **Cognitive Load Conditioning:** Integrating mental tasks during physical training to build an athlete's capacity to think under physical stress, improving decision-making in fatigue conditions.
- **Endurance of Executive Functions:** Developing the brain's ability to handle complex decision-making and adapt to rapidly changing situations, especially in high-stakes scenarios.
- **Dual-Task Training:** Combining physical drills with mental tasks to train athletes to multitask, improving brain flexibility and motor control under pressure.

PRE-PERFORMANCE PHASE FOR BRAIN OPTIMIZATION.

Pre-performance preparation for the brain involves techniques to enhance focus, reduce anxiety, and ensure optimal brain performance:

- **Mental Warm-Up:** Just as muscles need warming up, the brain also benefits from a cognitive warm-up involving visualization, attention tasks, or reaction time drills.
- **Visualization and Imagery:** Athletes are encouraged to mentally rehearse movements and game scenarios, improving motor execution through strengthened neural pathways.
- **Relaxation and Focus Techniques:** Methods such as deep breathing, mindfulness, and progressive muscle relaxation reduce pre-competition anxiety and promote a calm, focused mental state.

POST-PERFORMANCE PHASE FOR BRAIN RECOVERY

Recovery after intense mental exertion is critical for long-term cognitive health and avoiding burnout. Post-performance strategies focus on restoring cognitive balance:

- **Neuroplastic Recovery:** Ensuring the brain has downtime to recover from high cognitive demands. Along with the NeuroVIZR, activities such as meditation, yoga, and light mental tasks support neural regeneration.
- **Sleep Optimization:** Sleep plays a critical role in memory consolidation and cognitive recovery. Sports medicine practitioners emphasize good sleep hygiene and the importance of sufficient rest post-performance.



TRAINING PHASE – NEUROLOGICAL TRAINING

Neural exercise, particularly when it focuses on elements like speed, pattern recognition, agility, and intensity, can greatly enhance an athlete's performance by optimizing the brain's ability to process information, make decisions, and execute physical actions more efficiently. Here's how each of these areas impacts athletic performance and the neural benefits they provide:

01. SPEED EXERCISE: ENHANCING NEURAL PROCESSING AND REACTION TIME.

In athletics, the **speed of decision-making** and **reaction time** is critical. Neural exercises that focus on speed aim to enhance the brain's ability to rapidly process information and generate motor outputs in a fraction of a second. This includes **faster recognition of stimuli**, **quicker evaluation of situational context**, and **more rapid motor planning** and **execution**.

Neurological benefits: Training for speed increases the brain's neural efficiency by reducing synaptic delay and optimizing the firing patterns of neurons. Athletes can process sensory information (e.g., visual, auditory, or tactile) faster and respond to it more swiftly.

Motor benefits: Speed training enhances the brain's connection to muscle groups, optimizing motor unit recruitment and muscle response times. This leads to quicker, more explosive movements, which are essential for sports like sprinting, basketball, soccer, and combat sports.

Reflex improvement: Neural speed training also improves the reflex arc, shortening the time between stimulus perception and motor response, which is crucial in fast-paced athletic scenarios.

«BY TRAINING BOTH THE MIND AND BODY, ATHLETES CAN OPTIMIZE THEIR MENTAL STATE FOR PEAK PERFORMANCE, INCREASING ADAPTABILITY AND CONTINUOUSLY REFINING THEIR SKILLS.»

02. PATTERN EXERCISE: BOOSTING ANTICIPATION AND DECISION-MAKING

Pattern recognition involves the brain's ability to identify recurring patterns in stimuli, whether these patterns come from opponents' movements, ball trajectories, or gameplay situations. This skill allows athletes to anticipate what is likely to happen next and prepare a response in advance.

Neurological benefits: Training pattern recognition strengthens visual processing circuits and regions involved in predictive coding, allowing athletes to anticipate and react to sequences of events more accurately. For example, a quarterback who can quickly identify defensive formations has a critical advantage in anticipating the opponent's play.

Predictive ability: Enhancing the brain's predictive processing system makes athletes better at recognizing cues, increasing their capacity to anticipate the actions of others (e.g., predicting a tennis opponent's serve direction).

Cognitive flexibility: It improves the athlete's ability to switch quickly between patterns and adapt when predictions are wrong, a key component of cognitive flexibility in sports.

03. AGILITY EXERCISE: NEURAL CONTROL OF DYNAMIC MOVEMENTS

Agility training is about changing direction quickly and efficiently. At the neurological level, agility requires precise control over motor planning, proprioception (the brain's awareness of the body in space), and real-time decision-making under changing conditions.

Neurological benefits: Agility exercises train the motor cortex, cerebellum, and basal ganglia to coordinate rapid and smooth transitions between movement patterns. The brain refines its ability to process proprioceptive feedback, which informs the athlete's body position, balance, and posture in real time.

Neural plasticity: This type of training promotes neuroplasticity, particularly in the cerebellum, enhancing fine motor control and the ability to adjust movements fluidly in response to unpredictable stimuli (e.g., dodging a defender in football).

Refining movement efficiency: As neural pathways become more efficient, movements become more refined, reducing energy expenditure and making the athlete more fluid and responsive.

04. INTENSITY EXERCISE: OPTIMIZING FOCUS, RESILIENCE AND NEURAL ADAPTATION

Training at high intensity pushes the brain to manage extreme physical and mental stress. This requires focusing attention, managing fatigue, and sustaining performance under pressure—all of which depend on efficient neural processing.

Neurological benefits: High-intensity training stimulates the brain's attentional networks and improves the ability to maintain focus and process multiple streams of information (e.g., maintaining tactical awareness while dealing with fatigue). This is essential for sports that require sustained effort and concentration, like marathon running or competitive cycling.

Stress resilience: Training under high-intensity conditions enhances the brain's ability to manage stress through the hypothalamic-pituitary-adrenal (HPA) axis, making athletes more resilient to the mental pressures of competition.

Neurotransmitter regulation: Intense exercise increases the production of neurochemicals like dopamine and norepinephrine, which improve focus, motivation, and response to rewards. This creates a more adaptive response to the demands of high-stakes competition, helping athletes maintain peak performance levels.



INTEGRATED BENEFITS FOR THE ATHLETE

When these aspects are combined into a structured neural exercise regimen, the overall benefits to the athlete include:

Enhanced Reaction Times and Motor Coordination

Neural speed training and agility drills train the brain to execute faster and more coordinated responses. Athletes can make split-second decisions and execute precise movements efficiently, reducing the risk of injury during quick changes in direction or high-speed actions.

Improved Decision-Making Under Pressure

Pattern recognition and high-intensity training enable athletes to think critically and make optimal decisions in real time, even under physical or mental stress. In sports like basketball or soccer, where decisions must be made within milliseconds, the ability to recognize patterns and anticipate actions is invaluable.

Optimized Cognitive Flexibility and Adaptability

The combination of pattern recognition and agility training enhances cognitive flexibility—the ability to adapt strategies quickly when the environment or circumstances change. In a

fast-paced game, athletes must pivot between offensive and defensive mindsets while maintaining sharp mental acuity.

Neural Resilience and Mental Toughness

High-intensity neural exercise builds mental toughness, allowing athletes to handle the psychological challenges of competition, such as performing under pressure, managing pain, or coping with unexpected setbacks.

LONG-TERM NEUROPLASTIC BENEFITS

Neural exercises that focus on speed, pattern recognition, agility, and intensity promote neuroplasticity, enabling the brain to form new synaptic connections that make athletic performance more automatic, fluid, and efficient. Over time, this leads to long-term skill retention and better adaptation to new challenges, giving athletes an edge in both practice and competition.



VIZR

soundcore

TRAINING PHASE – PSYCHOLOGICAL TRAINING

Psychological training, when integrated with neural exercises focusing on elements like **feeling it, stabilization, going deep,** and **new moves,** can create a powerful synergy between mental and physical performance in athletes. These exercises build on psychological concepts such as **embodied cognition, focus, mental resilience,** and **adaptive learning,** while simultaneously reinforcing neural pathways that support those skills.

Psychological training that incorporates neural exercises centered on **feeling it, stabilization, going deep,** and **new moves** creates a powerful feedback loop between the brain and body. These exercises promote mental resilience, enhance embodied cognition, and stimulate neuroplasticity, ultimately allowing athletes to perform with greater intuition, stability, focus, and creativity.

By training both the mind and body in these ways, athletes can optimize their mental state for peak performance, increase adaptability, and continuously refine their skills. Here's how each of these components generates benefits for the athlete.



01. FEELING IT: ENHANCING EMBODIED COGNITION AND INTUITION

«Feeling it» refers to cultivating an athlete's deep, intuitive connection with their body and movements, a state often described as being “in the zone” or “flow.” This kind of neural exercise emphasizes **mind-body synchronization**, allowing athletes to trust their body's responses without overthinking actions.

Neurological and psychological benefits: This form of training enhances embodied cognition, where the brain and body work together seamlessly to produce movement and action without requiring conscious intervention. Athletes in this state rely on deeply ingrained motor patterns, allowing them to perform with minimal cognitive load. Neural circuits become optimized for rapid, automatic responses.

Flow state: Athletes who train to “feel” their movements can access the flow state more easily, where they experience heightened awareness, time distortion, and a sense of effortlessness. This state has been shown to enhance both performance and enjoyment of the sport.

Intuition and creativity: Training to “feel it” strengthens the athlete's proprioceptive feedback loop, allowing them to intuitively respond to the nuances of their sport. Whether it's a tennis player adjusting to the spin of the ball or a gymnast feeling the balance in a routine, athletes become more attuned to subtle cues that guide their actions.

BENEFITS FOR THE ATHLETE:

- Faster, more instinctive reactions
- Reduced cognitive interference, which minimizes overthinking and hesitation
- Increased access to flow states, enhancing performance and confidence
- Heightened awareness of body positioning and movement dynamics

02. STABILIZATION: ENHANCING FOCUS, BALANCE, AND MENTAL RESILIENCE.

Neural exercises that focus on **stabilization** build both physical and mental stability, giving athletes the ability to stay grounded and maintain control in challenging, dynamic environments. Stabilization is both a mental skill (keeping focused under pressure) and a physical one (maintaining balance and control of movements).

Neurological and psychological benefits: Stabilization training engages the brain regions responsible for proprioception and vestibular function, which are critical for maintaining balance and body control. At the psychological level, it reinforces mental resilience, helping athletes manage stress and maintain focus in high-pressure situations.

Cognitive control: Stabilization exercises promote cognitive control by teaching the brain to manage competing demands (e.g., processing sensory input while maintaining mental focus and physical coordination). For example, an athlete may need to balance on an unstable surface while tracking an object or maintaining focus on a strategic decision.

Emotional regulation: Stabilization also helps regulate emotional responses, allowing athletes to remain calm, composed, and focused even when fatigued or under external pressure (e.g., in the final minutes of a game).

BENEFITS FOR THE ATHLETE:

- Improved physical balance and core control, reducing injury risk
- Enhanced mental focus and stability under pressure
- Increased resilience in stressful situations, promoting composure and confidence
- Strengthened cognitive control over distractions

03. GOING DEEP: ENHANCING FOCUS, REFLECTION, AND INTERNALIZATION.

«Going deep» refers to the mental practice of diving deeply into an aspect of performance—whether it’s technique, strategy, or mindset—and internalizing it through deliberate, reflective practice. This approach involves **mental depth** and **reflection**, encouraging athletes to engage in focused concentration and deeper understanding of their sport.

Neurological and psychological benefits: By engaging in «deep practice,» athletes activate **long-term potentiation**, which strengthens synaptic connections associated with specific skills or knowledge. This depth of focus enhances the brain’s capacity for **myelination**, allowing neurons to fire more efficiently and improve performance over time.

Visualization and mental rehearsal: Athletes can use mental imagery and **visualization** techniques to mentally rehearse complex movements or strategies, strengthening neural circuits associated with those tasks. This helps them “see” and “feel” the action before it occurs in reality, enhancing both learning and execution.

Internalization of skills: Deep mental engagement promotes the **internalization of skills**, making them more automatic. This is particularly beneficial in complex sports with highly technical or tactical demands, where deep reflection helps athletes refine their approach and gain a nuanced understanding of their performance.

BENEFITS FOR THE ATHLETE:

- Deeper understanding and mastery of techniques and strategies
- Enhanced ability to visualize and mentally rehearse performance
- Strengthened focus and capacity for sustained concentration
- Improved internalization and automaticity of skills

04. NEW MOVES: EXPANDING NEURAL PLASTICITY AND LEARNING.

«New moves» in neural training focus on challenging the brain with novel tasks and movement patterns, stimulating **neural plasticity** and encouraging the development of new neural pathways. This kind of training breaks the athlete out of familiar routines, forcing the brain to adapt and learn.

Neurological and psychological benefits: Learning new movements promotes neuroplasticity—the brain’s ability to reorganize itself by forming new synaptic connections. This adaptability is crucial for athletes, as it allows them to continuously improve their skills and adjust to new demands. Introducing novel exercises stimulates brain regions involved in **motor learning**, including the **cerebellum**, **prefrontal cortex**, and **basal ganglia**.

Cognitive flexibility: Training with new moves develops **cognitive flexibility**, allowing the athlete to adapt more readily to unexpected situations in their sport. This could mean improvising a new technique in gymnastics or adapting to an opponent’s surprise move in a martial arts match.

Motor diversity and creativity: The introduction of new movement patterns enhances the brain’s ability to handle motor diversity, fostering creativity in movement. This is especially beneficial for sports that require dynamic, multi-faceted movements (e.g., parkour, martial arts, dance).

BENEFITS FOR THE ATHLETE:

- Increased neural plasticity, promoting continuous improvement
- Enhanced adaptability and cognitive flexibility
- Greater movement diversity, expanding the athlete’s physical repertoire
- Encouraged creativity and innovation in both movement and strategy

INTEGRATED BENEFITS OF PSYCHOLOGICAL-NEURAL TRAINING.

When these elements—**feeling it, stabilization, going deep,** and **new moves**—are combined, athletes experience a broad range of psychological and neural benefits that enhance performance:

1. Heightened Body Awareness and Intuition

«Feeling it» training develops a deeper connection between the mind and body, allowing athletes to trust their instincts and act fluidly without overthinking. This heightened sense of proprioception and body awareness is critical in fast-moving, dynamic sports.

2. Mental and Physical Stability

Exercises focused on stabilization build not only balance and coordination but also mental toughness, which helps athletes maintain composure in high-pressure situations. This combination is essential for consistent performance under stress.

3. Focused Learning and Deep Mastery

«Going deep» encourages athletes to refine their techniques and strategies through focused mental practice, helping them internalize complex skills and make them automatic. This leads to deeper mastery and a greater understanding of the nuances of their sport.

4. Enhanced Adaptability and Creativity

Introducing «new moves» forces the brain to adapt to novel challenges, increasing neural plasticity and cognitive flexibility. This translates into better problem-solving and creativity, both in movement and strategy, allowing athletes to excel in unpredictable scenarios.



TRAINING PHASE - UNSTICK STUCK TRAINING

Neural stimulations that target **destabilizing or weakening bands of excessive brain wave activity** (i.e., alpha, beta, theta, gamma, and delta waves) are a powerful tool for optimizing brain function in athletes. Each brain wave band is associated with different states of consciousness and brain activity, and having an excess of any one type of brain wave can lead to dysfunction, particularly in performance contexts. By regulating and balancing brain wave activity through **neural** stimulation, athletes can enhance their cognitive, emotional, and motor performance.

Neural stimulation that focuses on weakening or destabilizing excessive brain waves allows athletes to achieve a **balanced brain wave profile**, which enhances **focus, relaxation, cognitive flexibility, and motor control**. By optimizing the brain's electrical patterns, athletes can improve performance, manage stress, recover more effectively, and maintain high levels of mental and physical readiness during both training and competition.



01. HABIT BUSTER #1 : EXCESSIVE ALPHA BRAIN WAVES (8-12 Hz)

Alpha waves are associated with a **relaxed and calm state of mind** and are prominent during rest, meditation, or light daydreaming. While alpha waves are beneficial for relaxation and recovery, **excessive alpha activity** can lead to problems like sluggishness, lack of focus, and mental fog—states that hinder athletic performance, particularly when athletes need to be alert and focused.

Issues with excessive alpha waves:

- Difficulty concentrating or sustaining attention
- Reduced mental energy, sluggishness, or apathy
- Poor reaction times due to a relaxed, unfocused mental state

BENEFITS OF WEAKENING EXCESSIVE ALPHA WAVES:

Increased focus and alertness: Reducing excessive alpha activity allows athletes to shift into a more focused and alert state, improving concentration during high-pressure situations (e.g., during competitions or strategic gameplay).

Enhanced cognitive processing: Lowering excessive alpha waves enables the brain to engage more in beta wave activity (associated with alertness and problem-solving), allowing athletes to think faster and react more efficiently.

Improved readiness for action: Reducing alpha dominance helps athletes switch from a relaxed state to an action-ready state more easily, promoting a sharper and more responsive mindset during training and competition.

02. HABIT BUSTER #2 : EXCESSIVE BETA BRAIN WAVES (13-30 Hz)

Beta waves are associated with **alertness, focus, and cognitive processing**. They dominate when we are actively engaged in problem-solving or focused on external stimuli. However, **excessive beta activity** can lead to hyperarousal, anxiety, and overthinking, which can impair athletic performance by increasing stress and reducing smooth motor coordination.

Issues with excessive beta waves:

- Anxiety, nervousness, or stress under pressure
- Overthinking, leading to poor decision-making or hesitation
- Difficulty relaxing and recovering mentally, which is critical between high-intensity activities

BENEFITS OF WEAKENING EXCESSIVE BETA WAVES:

Reduced stress and anxiety: Weakening excessive beta waves can promote relaxation and reduce over-arousal, allowing athletes to remain calm and composed under pressure (e.g., in high-stakes situations like penalty kicks or final moments of a game).

Enhanced decision-making: Decreasing beta activity reduces overthinking and mental chatter, allowing for more fluid and intuitive decision-making. This is crucial in fast-paced sports where decisions need to be made quickly and instinctively.

Improved motor coordination: High beta activity can cause muscular tension and jitters. Lowering excessive beta waves promotes a more relaxed motor system, enhancing smoothness of movement and coordination during performance.

03. HABIT BUSTER #3 : EXCESSIVE THETA BRAIN WAVES (4-8 Hz)

Theta waves are linked to **deep relaxation, creativity, and intuition** and are prominent during meditation, light sleep, or moments of inspiration. However, **excessive theta activity** during wakeful states can lead to daydreaming, inattention, and a lack of mental clarity—states that impair performance when focus and precision are required.

Issues with excessive theta waves:

- Inattentiveness, difficulty concentrating
- Daydreaming or feeling mentally foggy
- Slower reaction times due to disengagement from the present moment

BENEFITS OF WEAKENING EXCESSIVE THETA WAVES:

Increased focus and cognitive control: Reducing excessive theta activity helps athletes maintain better focus and attention, keeping them engaged in the present moment and able to react more quickly during competition.

Enhanced mental clarity: Lowering theta activity prevents daydreaming and mental fog, promoting clearer thinking, which is important for tactical decision-making and rapid problem-solving during athletic events.

Improved alertness and readiness: Weakening theta waves enhances the brain's ability to transition into more active, alert states (i.e., beta waves), improving reaction times and readiness to act.

04. HABIT BUSTER #4 : EXCESSIVE GAMMA BRAIN WAVES (30-100 Hz)

Gamma waves are associated with **high-level information processing, peak focus, and cognitive integration**. They are crucial for tasks that require intensive focus, memory retrieval, and complex problem-solving. However, **excessive gamma activity** can lead to overstimulation, cognitive fatigue, and difficulty shifting into more relaxed states, which are important for recovery and rest.

Issues with excessive gamma waves:

- Cognitive fatigue or burnout from excessive mental effort
- Difficulty relaxing or shifting into lower brain wave states (e.g., alpha or theta) for recovery
- Hyper-focus that can narrow awareness and lead to tunnel vision

BENEFITS OF WEAKENING EXCESSIVE GAMMA WAVES:

Improved recovery and relaxation: By reducing excessive gamma activity, athletes can shift more easily into relaxed states (such as alpha or theta), promoting mental recovery and preventing burnout after periods of intense focus.

Balanced cognitive focus: Weakening excessive gamma activity ensures that focus remains sharp without leading to tunnel vision, allowing athletes to maintain a broader awareness of their environment (e.g., in team sports where situational awareness is critical).

Mental flexibility: Reducing excessive gamma waves promotes mental flexibility, allowing athletes to switch between tasks or strategies more fluidly, which is key in sports that require quick transitions between offensive and defensive play.

05. HABIT BUSTER #5 : EXCESSIVE DELTA BRAIN WAVES (0.5-4 Hz)

Delta waves are associated with **deep sleep, physical healing, and restoration**. They dominate during restorative sleep stages (such as deep NREM sleep) and are essential for recovery. However, **excessive delta activity** during wakefulness can lead to lethargy, slow mental processing, and a lack of energy—states that are detrimental to performance.

Issues with excessive delta waves:

- Feeling sluggish or lethargic, reduced energy levels
- Slow mental processing and difficulty staying alert
- Poor performance due to a lack of engagement or vitality

BENEFITS OF WEAKENING EXCESSIVE DELTA WAVES:

Increased wakefulness and energy: Reducing excessive delta activity promotes alertness and wakefulness during training and competition, ensuring that athletes feel energized and ready to perform.

Improved mental sharpness: Lowering delta waves prevents mental sluggishness and lethargy, allowing athletes to stay mentally sharp and responsive.

Enhanced focus and engagement: Weakening delta waves keeps the brain more engaged and attentive, reducing the risk of feeling disconnected or disengaged from performance, which is especially important in high-intensity sports.

GENERAL BENEFITS OF NEURAL STIMULATION IN REGULATING BRAIN WAVES

By focusing on regulating and balancing brain wave activity, neural stimulation can help athletes achieve optimal brain states for their specific performance needs. The goal is not to eliminate any one type of brain wave but to ensure that the appropriate brain wave patterns dominate at the right times, based on the demands of the task. The benefits include:

Improved focus and attention: Weakening excessive alpha, theta, or delta waves while promoting healthy beta and gamma activity helps athletes stay focused and alert, improving reaction times and decision-making during competition.

Reduced stress and anxiety: Reducing excessive beta activity, which is associated with stress and hyperarousal, promotes relaxation and composure, allowing athletes to perform under pressure without being overwhelmed by anxiety.

Enhanced mental clarity and sharpness: Weakening excessive theta or delta waves prevents mental fog and sluggishness, keeping athletes mentally sharp and engaged throughout their performance.

Better physical coordination: Brain wave regulation helps the brain maintain a balance between mental focus and physical relaxation, optimizing motor coordination and fluidity of movement.

Optimal recovery and resilience: By weakening excessive high-frequency brain waves (gamma or beta) and promoting healthier alpha or delta states during recovery periods, athletes can ensure better rest, healing, and mental rejuvenation between bouts of physical exertion.





PRE-PERFORMANCE

Pre-performance psychological training in athletics is crucial for optimizing both mental and physical readiness before competition. Neural exercises targeting **De-stress, Target Focus, Calm the Jitters,** and **Burst Mode** are designed to prime the brain for peak performance by regulating emotional states, enhancing focus, and preparing the nervous system for rapid action.

Pre-performance psychological training, with neural exercises focused on **De-stress, Target Focus, Calm the Jitters,** and **Burst Mode,** is highly effective for athletes aiming to achieve peak performance. By regulating stress, enhancing focus, calming nervous energy, and preparing the brain for explosive action, these exercises allow athletes to reach an optimal state of **mental clarity, emotional control,** and **physical readiness.** Together, these exercises help athletes perform with greater confidence, precision, and power when it matters most.

Here's how these neural exercises generate benefits for athletes:



01 : DE-STRESS: REDUCING PRE-PERFORMANCE ANXIETY AND ENHANCING MENTAL CLARITY

Athletes often experience **pre-competition anxiety** due to the pressure of performing well. This stress can negatively affect cognitive clarity, decision-making, and motor coordination. Neural exercises that focus on **de-stressing** are aimed at calming the nervous system, lowering stress hormone levels (like cortisol), and activating the **parasympathetic nervous system** to induce a relaxed yet alert mental state.

Neurological benefits:

Reduced sympathetic arousal: By calming the sympathetic nervous system (the fight-or-flight response), neural exercises can help reduce the physiological symptoms of stress, such as increased heart rate, shallow breathing, and muscle tension.

Improved cognitive clarity: De-stressing helps athletes avoid mental overload, leading to clearer thinking and better decision-making. When the brain is not overwhelmed by stress, it can process sensory input more efficiently.

Enhanced emotional regulation: Neural de-stressing exercises improve the athlete's ability to regulate emotional responses,

preventing anxiety from spiraling into negative thoughts or panic.

BENEFITS FOR THE ATHLETE:

- **Lower pre-performance anxiety**, allowing for better focus on the task at hand.
- **Improved mental clarity** and ability to stay composed, even under competitive pressure.
- **Faster recovery** between training sessions and competitions by reducing overall stress load on the nervous system.

02. TARGET FOCUS: ENHANCING CONCENTRATION AND PRECISION

Target Focus involves mental exercises that improve an athlete's ability to narrow their attention onto a specific task or goal. This is particularly important for sports requiring precision, timing, and strategic execution. Neural exercises for target focus optimize sustained attention, situational awareness, and the **ability to block out distractions**.

Neurological benefits:

Activation of the prefrontal cortex: This region of the brain, associated with executive function and attention, becomes more efficient at filtering out distractions and focusing on relevant stimuli.

Enhanced neural efficiency: Target focus training improves the brain's ability to process and prioritize sensory information. This allows athletes to hone in on key visual or auditory cues, such as the movement of a ball, the position of opponents, or a referee's signals.

Strengthened working memory: This training enhances working memory by improving how athletes mentally juggle and prioritize multiple pieces of information in real-time, such as strategy adjustments or game-time decisions.

BENEFITS FOR THE ATHLETE:

- **Sharpened concentration:** Athletes can block out distractions, such as crowd noise or external stressors, and stay completely focused on their immediate task.
- **Improved precision and timing:** In sports like archery, tennis, or basketball, target focus helps athletes execute movements with greater accuracy and timing.
- **Enhanced situational awareness:** By improving attention control, athletes can track relevant environmental details without becoming overwhelmed or distracted.

03. CALM THE JITTERS: REDUCING NERVOUS ENERGY FOR SMOOTH MOTOR COORDINATION

Pre-performance jitters are common among athletes and can manifest as **nervous energy**, muscle tension, and impaired motor coordination. Neural exercises that focus on **calming the jitters** work by regulating the **autonomic nervous system**, reducing excessive beta brain wave activity (associated with anxiety), and promoting a **relaxed but ready** state.

Neurological benefits:

Parasympathetic activation: By engaging the parasympathetic nervous system, neural exercises reduce symptoms of hyperarousal (e.g., sweating, jitteriness, increased heart rate) while maintaining a level of readiness.

Improved motor control: Calming the jitters helps reduce excess muscular tension and increases proprioceptive awareness, allowing athletes to move more smoothly and with greater coordination.

Beta brain wave regulation: These exercises help regulate excessive beta activity, which can lead to overthinking, nervous energy, and excessive muscle activation. Bringing beta activity

to a healthy level helps athletes feel calm and in control.

BENEFITS FOR THE ATHLETE:

- **Reduced physical tension:** This leads to smoother, more controlled movements during competition, particularly in sports where fine motor control is key (e.g., gymnastics, golf, shooting).
- **Improved emotional composure:** Athletes experience less nervousness and feel more confident, which enhances their ability to perform under pressure.
- **Better reaction times:** With fewer physical jitters, athletes can react faster and more fluidly to in-game stimuli, such as a quick pass in soccer or an opponent's move in combat sports.

04. BURST MODE: PRIMING THE BRAIN FOR EXPLOSIVE ACTION

Burst Mode refers to training the brain to **rapidly transition** from a calm or focused state into one of **explosive, high-energy action**. This type of neural exercise primes the brain for situations where immediate, intense physical output is required, such as a sprint, jump, or powerful strike.

Neurological benefits:

Gamma wave and beta wave bursts: This training enhances the brain's ability to generate bursts of high-frequency brain waves (e.g., gamma and beta waves) that are associated with focused attention, motor planning, and rapid neural processing.

Increased neural firing speed: Burst mode training enhances the brain's ability to recruit the necessary motor units quickly, improving the synchronization between the motor cortex and muscles, leading to faster and more explosive movements.

Optimized neurotransmitter balance: By preparing the brain for intense action, burst mode exercises promote the release of dopamine and norepinephrine, which improve motivation, focus, and energy during peak performance moments.

BENEFITS FOR THE ATHLETE:

- **Explosive power:** Athletes can generate short bursts of intense energy (e.g., sprinting, lifting, jumping) with more efficiency and control.
- **Quick transitions:** Burst mode training allows athletes to transition quickly from a relaxed state to action mode, which is especially beneficial in sports requiring quick changes of pace, such as basketball, tennis, or track and field.
- **Enhanced motor readiness:** Athletes are mentally and physically prepared to deliver maximum effort on demand, whether during a key play, a start signal, or a sudden shift in strategy.

05. TASK MODE SESSIONS IN NEURO-ATHLETICS: PRE-PERFORMANCE BENEFITS

In neuro-athletics, the concept of «Task Mode» refers to a mental and cognitive state where athletes optimize their brain's efficiency, focus, and readiness for performance. Pre-performance effects in this context are the cognitive and neurological adjustments that occur before a competition or physical event, aiming to prime the brain and body for peak performance.

Task Mode sessions specifically prepare the brain to handle high-pressure, high-demand situations, improving both cognitive and motor execution.

Task Mode sessions in neuro-athletics offer numerous benefits by priming the brain for optimal cognitive and physical performance before an event. These sessions enhance focus, reaction time, motor coordination, mental resilience, and cognitive-motor integration, all while reducing pre-performance anxiety. By preparing the brain to be fully engaged and ready for high-pressure situations, Task Mode sessions help athletes perform at their peak when it matters most.

BENEFITS OF TASK MODE SESSIONS FOR PRE-PERFORMANCE:

Enhanced Focus and Attention

- **Neurological Mechanism:** Task Mode sessions help sharpen the prefrontal cortex, which is responsible for attention and decision-making. By engaging in focused, task-specific mental exercises, athletes can improve their ability to concentrate on relevant stimuli while filtering out distractions.
- **Benefit:** Increased ability to focus on the task at hand, even in complex or dynamic environments, such as in team sports or during high-stakes moments.

Improved Reaction Time and Decision-Making

- **Neurological Mechanism:** These sessions activate the brain's executive functions, improving the brain's ability to quickly process sensory input and make decisions. By enhancing synaptic efficiency in neural networks associated with reaction time, athletes can improve their speed in responding to game situations.

- **Benefit:** Faster and more accurate decision-making, allowing athletes to react swiftly to changes in the environment, opponents' movements, or unexpected scenarios.

Optimized Motor Coordination and Execution

- **Neurological Mechanism:** Task Mode involves enhancing the connection between motor planning areas (such as the motor cortex) and the cognitive centers (such as the prefrontal cortex). This primes the brain-body connection, making movements more precise and efficient.
- **Benefit:** Better motor execution, leading to improved coordination, agility, and accuracy in physical performance. This is particularly beneficial in sports requiring fine motor control, such as gymnastics or tennis.

Reduced Pre-Performance Anxiety

- **Neurological Mechanism:** By training the brain to handle task-specific challenges before competition, Task Mode sessions help regulate the amygdala's response to stress and anxiety. These sessions can incorporate techniques such as visualization and mindfulness, which are proven to lower cortisol levels and reduce overactivity in anxiety centers.

- **Benefit:** Athletes experience reduced performance anxiety, leading to a calmer and more composed mental state before competition, which can prevent stress-induced performance decline.

Mental Resilience and Adaptability

- **Neurological Mechanism:** Task Mode training strengthens neuroplasticity, particularly in areas related to adaptability and resilience, such as the anterior cingulate cortex (ACC). It enhances the brain's ability to handle unexpected changes or errors during performance by fostering flexible thinking and cognitive control.
- **Benefit:** Increased mental resilience and the ability to bounce back quickly from mistakes or setbacks during competition, maintaining focus and confidence throughout.

Increased Cognitive-Motor Integration

- **Neurological Mechanism:** Task Mode sessions foster better synchronization between cognitive demands (e.g., strategy, decision-making) and motor actions (e.g., movement, execution). This enhances connectivity between brain regions like the dorsolateral prefrontal

cortex (for strategic thinking) and the supplementary motor area (for motor preparation).

- **Benefit:** More seamless integration between thinking and movement, which improves the ability to execute complex motor tasks that require rapid adjustments based on real-time decisions, such as in combat sports or basketball.

Neurochemical Priming

- **Neurological Mechanism:** Task Mode sessions stimulate the release of neurochemicals such as dopamine and acetylcholine, which are crucial for motivation, focus, and learning. These chemicals enhance neural signaling, improving the brain's overall readiness and engagement with the task.
- **Benefit:** Athletes enter a state of heightened motivation and engagement, leading to improved cognitive performance and sustained mental energy throughout the event.

Visualization and Motor Imagery Reinforcement

- **Neurological Mechanism:** Visualization techniques employed in Task Mode sessions activate similar neural pathways as actual motor execution, particularly in the

premotor cortex and supplementary motor area. This primes the brain to execute the motor actions with greater precision and confidence.

- **Benefit:** Athletes can mentally rehearse their performance, strengthening neural connections for the motor skills needed, which leads to smoother, more automatic execution during the actual event.

06. BLOCK THINKING SESSION IN NEURO-ATHLETICS: PRE-PERFORMANCE BENEFITS

In neuro-athletics, «Block Thinking» refers to a cognitive strategy aimed at improving performance through structured mental processing. This approach helps athletes compartmentalize different aspects of a task or performance, allowing them to manage cognitive load efficiently. In pre-performance contexts, Block Thinking sessions provide a unique advantage by fostering a focused and organized mental state. Athletes can concentrate on specific elements of performance while managing distractions, emotions, and cognitive demands. Below are the benefits of Block Thinking sessions, considering the neurology of pre-performance effects.

Block Thinking sessions offer significant neurological and cognitive benefits in neuro-athletics by improving task segmentation, mental resilience, focus, and decision-making. These sessions prime the brain for high-performance states by helping athletes compartmentalize tasks, manage cognitive load, and reduce emotional interference. Through structured thinking and enhanced mental flexibility, athletes can approach complex performances with greater control, precision, and confidence.

BENEFITS OF BLOCK THINKING SESSIONS FOR PRE-PERFORMANCE:

Improved Cognitive Segmentation

- **Neurological Mechanism:** Block Thinking engages the prefrontal cortex, the brain's center for executive functions, allowing athletes to break down complex tasks into smaller, manageable components. This promotes better cognitive organization by focusing on one «block» or aspect of performance at a time.
- **Benefit:** Athletes can prioritize specific goals or tasks (such as strategy, technique, or movement), preventing cognitive overload and ensuring they remain focused on what matters most during competition.

Enhanced Focus and Task-Switching

- **Neurological Mechanism:** By enhancing the brain's ability to switch between different mental tasks, Block Thinking activates neural circuits in the dorsolateral prefrontal cortex and the anterior cingulate cortex. This improves mental flexibility while maintaining attention to each task at hand.

- **Benefit:** Athletes develop better cognitive flexibility and attentional control, allowing them to shift focus effectively between different phases of their performance (e.g., switching between offense and defense) without losing focus.

Reduced Anxiety and Emotional Interference

- **Neurological Mechanism:** Block Thinking helps regulate the limbic system, particularly the amygdala, by structuring cognitive and emotional responses. By compartmentalizing emotional reactions, the brain can better manage stress and avoid emotional interference with performance.
- **Benefit:** Athletes experience reduced performance anxiety by focusing on specific, isolated tasks and avoiding overwhelming feelings that might arise from thinking about the performance as a whole. This leads to a calmer, more controlled emotional state before and during the event.

Increased Mental Resilience and Adaptability

Neurological Mechanism: Block Thinking enhances neuroplasticity in brain regions associated with adaptability, such as the anterior cingulate cortex and the prefrontal cortex. It trains the brain to handle sudden changes or challenges by

focusing on problem-solving in sequential «blocks.»

Benefit: Athletes are more mentally resilient, able to adapt quickly and compartmentalize setbacks or mistakes. This prevents frustration or anxiety from affecting subsequent phases of their performance.

Optimized Cognitive Load Management

- **Neurological Mechanism:** Block Thinking utilizes cognitive load theory, allowing the brain to manage the amount of information processed at one time. This reduces cognitive strain by engaging working memory and executive functions in the prefrontal cortex, while inhibiting distractions from other parts of the brain.
- **Benefit:** Athletes can avoid feeling overwhelmed by breaking down complex tasks, strategies, or performances into smaller, more manageable mental segments. This ensures they maintain optimal mental efficiency and clarity during competition.

Improved Decision-Making and Strategic Thinking

- **Neurological Mechanism:** By isolating strategic decisions into individual cognitive blocks, Block Thinking activates brain regions involved in decision-making and planning, such as the orbitofrontal cortex. This helps athletes make well-reasoned choices without the cognitive interference of unrelated tasks.
- **Benefit:** Athletes make more calculated and thoughtful decisions during their performance, as each decision is framed within its own mental block, reducing the chance of impulsive or emotionally driven errors.

Greater Focus on Motor Execution

- **Neurological Mechanism:** Block Thinking helps athletes engage motor planning and execution centers, such as the motor cortex and basal ganglia, during specific blocks of their performance that focus on physical movement. This focused segmentation allows for better motor precision and control.
- **Benefit:** Motor tasks such as running, jumping, or performing a technical move are executed with greater accuracy, as the athlete is fully focused on the physical demands of the moment, unencumbered by competing cognitive tasks.

Structured Visualization and Imagery

- **Neurological Mechanism:** During Block Thinking sessions, athletes can compartmentalize their mental rehearsal into specific phases or segments of performance, activating visual and motor areas in the brain, such as the premotor cortex and visual cortex. This creates stronger neural connections associated with the actual performance.
- **Benefit:** Visualization is more effective because athletes can mentally rehearse each phase of their performance in clear, distinct segments. This helps with motor preparation and strengthens the brain's readiness for each part of the event.

Neurochemical Benefits

- **Neurological Mechanism:** By reducing mental clutter and emotional distractions, Block Thinking helps regulate the release of neurochemicals like dopamine, which enhances motivation and focus. It also reduces cortisol levels, minimizing stress and its impact on cognitive and physical performance.
- **Benefit:** Athletes enter a more positive, engaged state of mind, which boosts their confidence and helps them maintain mental energy throughout the competition.

INTEGRATED BENEFITS OF PRE-PERFORMANCE NEURAL TRAINING

When combined, neural exercises that target **De-stress, Target Focus, Calm the Jitters, and Burst Mode** create a comprehensive mental preparation framework that primes athletes for optimal performance by ensuring they are mentally, emotionally, and physically ready to perform at their best. Here's how these elements work together to create a high-performing athlete:

a) Mental and Emotional Regulation

De-stressing and calming the jitters help athletes regulate their emotional state, preventing anxiety or nervousness from impairing performance. This mental composure translates into greater confidence and the ability to maintain control, even under high-pressure conditions.

b) Sharpened Focus and Precision

Target focus exercises help athletes block out distractions and sustain attention on key performance elements, while burst mode training ensures that athletes can access rapid action and energy bursts when needed, without sacrificing accuracy or timing.

c) Efficient Transitions Between Mental States

Neural training for burst mode prepares athletes to transition smoothly between states of relaxation (from de-stressing or calming the jitters) and intense action (burst mode), ensuring that they are not mentally «stuck» in one state when the demands of competition shift.

d) Improved Physical and Motor Coordination

Calming nervous energy improves motor coordination and smoothness of movement, while target focus enhances the precision and timing of motor actions. Burst mode training ensures that athletes can summon explosive power and speed when required.



POST-PERFORMANCE

Post-performance psychological training is essential for athletes to recover mentally, physically, and emotionally after intense competition or training. Neural exercises that focus on **Unwind, Kick Back, Deep Mind, High Mind, Smooth It Out,** and **Soft Center** aim to reset the brain, reduce mental fatigue, and promote recovery. These exercises help athletes transition from heightened states of arousal during performance to relaxed and restorative states, ensuring they are ready for the next challenge.

Post-performance psychological training, with neural exercises focusing on **Unwind, Kick Back, Deep Mind, High Mind, Smooth It Out,** and **Soft Center,** offers a holistic approach to recovery for athletes. These exercises help athletes release tension, reflect on performance, restore emotional balance, and cultivate self-compassion, leading to **mental clarity, emotional resilience, and long-term motivation.** This ensures that athletes are ready to return to training and competition with renewed energy and focus, enhancing both performance and well-being over time.

Here's how each of these exercises generates benefits for the athlete:



01. UNWIND: RELEASING TENSION AND MENTAL RESET

«Unwind» neural exercises help athletes transition from the high-energy, high-focus state required during competition to a relaxed state that facilitates recovery. This process is essential for shedding residual tension, both mental and physical, after intense performance.

Neurological benefits:

Activation of the parasympathetic nervous system:

These exercises help engage the parasympathetic nervous system, the “rest and digest” system, which counters the sympathetic activation that occurs during performance (the fight-or-flight response).

Decreased cortisol levels: Unwinding reduces the release of stress hormones like cortisol, which can linger after intense physical exertion. This promotes mental clarity and relaxation.

Reduced brain hyperactivity: After competition, the brain can remain in a hyperactive state due to prolonged focus and intensity. Unwind exercises help the brain disengage from

this state, promoting relaxation and calm.

BENEFITS FOR THE ATHLETE:

- **Faster mental reset:** Athletes can quickly return to a calm mental state, reducing feelings of lingering stress or excitement after competition.
- **Improved physical relaxation:** By letting go of mental and physical tension, athletes promote faster recovery and reduce muscle tightness or soreness.
- **Better sleep quality:** Unwinding post-performance supports better sleep, which is crucial for recovery and performance in subsequent events.

02. KICK BACK: FACILITATING MENTAL AND PHYSICAL RELAXATION

«Kick Back» exercises emphasize **full relaxation**, encouraging athletes to take a break from their usual high-energy mindset and allow themselves time to recharge. These exercises help balance the demands of competitive intensity with moments of rest and restoration.

Neurological benefits:

Activation of the default mode network (DMN): When athletes «kick back,» the brain shifts from goal-directed activity to restful, introspective states associated with the DMN. This network is crucial for mental recovery and processing experiences.

Promotion of alpha and theta brain waves: These exercises foster a calm, meditative brain state characterized by **alpha** (8-12 Hz) and **theta** (4-8 Hz) waves, both associated with relaxation and creative thinking.

Enhanced emotional regulation: Kicking back allows athletes to emotionally distance themselves from the intense emotions of competition, promoting emotional regulation and balance.

BENEFITS FOR THE ATHLETE:

- **Mental rejuvenation:** Athletes benefit from deep mental rest, helping them recover from the mental fatigue of sustained focus during competition.
- **Creative problem solving:** In a relaxed state, athletes can process their performance, allowing for subconscious problem solving and improvements for future events.
- **Improved mood:** Kicking back helps reduce any lingering frustration or emotional highs, creating a balanced, relaxed emotional state.

03. DEEP MIND: REFLECTION AND LEARNING INTEGRATION

«Deep Mind» exercises focus on encouraging athletes to **reflect** on their performance, integrating both successes and areas for improvement into their mental framework. This reflection is crucial for long-term learning and adapting strategies for future competitions.

Neurological benefits:

Activation of the prefrontal cortex: Reflective exercises stimulate the prefrontal cortex, which is involved in executive function, planning, and self-assessment. This promotes deeper cognitive engagement with past performance and aids in learning from mistakes.

Memory consolidation: The brain consolidates memories and strengthens neural pathways related to new skills or experiences during reflection. Long-term potentiation is enhanced, ensuring that lessons learned are retained.

Integration of emotions and logic: Deep mind exercises help athletes process emotional aspects of performance and integrate them with logical analysis,

promoting balanced reflection and preventing emotional bias.

BENEFITS FOR THE ATHLETE:

- **Enhanced learning and improvement:** Athletes can critically analyze their performance and internalize lessons that will improve future outcomes.
- **Emotional processing:** By reflecting on both positive and negative aspects of their performance, athletes can process emotions like disappointment or frustration in a constructive way.
- **Better decision-making:** Deep reflection helps athletes adjust their mental approach, tactics, or strategies, refining their preparation for the next competition.

04. HIGH MIND: CULTIVATING A GROWTH MINDSET AND BIG-PICTURE PERSPECTIVE

«High Mind» exercises involve cultivating a **growth mindset** and fostering a sense of **long-term perspective**. This mental training helps athletes maintain optimism, perseverance, and a broader understanding of their athletic journey, beyond a single performance.

Neurological benefits:

Activation of the dorsolateral prefrontal cortex:

This area of the brain is involved in **long-term planning, goal setting, and cognitive flexibility**. High mind exercises engage this area, promoting strategic thinking and resilience.

Dopamine regulation:

High mind exercises encourage a mindset of growth and future rewards, which can stimulate dopamine production. Dopamine is associated with motivation, positive reinforcement, and a drive to improve.

Resilience building:

By focusing on growth, athletes can rewire their brains to handle setbacks and failures more constructively, leading to improved emotional resilience over time.

BENEFITS FOR THE ATHLETE:

- **Long-term motivation:** High mind exercises help athletes see beyond immediate results and focus on long-term development and improvement, preventing burnout or discouragement.
- **Greater resilience:** Athletes develop a stronger ability to bounce back from failure, viewing setbacks as learning opportunities rather than barriers.
- **Enhanced mental toughness:** With a big-picture perspective, athletes build mental toughness, allowing them to stay motivated and persistent even when faced with challenges.

05. SMOOTH IT OUT: RESTORING EMOTIONAL BALANCE AND MENTAL CALM

«Smooth It Out» exercises focus on bringing emotional and mental **equilibrium** after the highs and lows of competition. These exercises restore a balanced, **steady mental state**, promoting long-term emotional stability.

Neurological benefits:

Reduced amygdala activation: The **amygdala**, responsible for processing emotions like fear, stress, and anxiety, can remain hyperactive after intense competition. Smooth it out exercises help reduce this activity, fostering calmness.

Strengthening emotional regulation circuits: By smoothing out emotional highs and lows, these exercises promote a healthy balance in the limbic system, improving emotional control and preventing burnout.

Harmonized brain wave patterns: These exercises promote a balanced mixture of alpha and beta waves, ensuring a state of calm focus and mental stability.

BENEFITS FOR THE ATHLETE:

- **Emotional recovery:** Athletes regain emotional balance, reducing the lingering effects of both extreme excitement and frustration.
- **Improved self-control:** Emotional balance leads to better emotional regulation, ensuring that athletes can manage their reactions more effectively in future competitions.
- **Sustained mental energy:** By smoothing out emotional ups and downs, athletes conserve mental energy, promoting long-term endurance.

06. SOFT CENTER: FINDING INNER PEACE AND SELF-COMPASSION

«Soft Center» exercises help athletes **connect with their inner calm**, promoting **self-compassion** and **emotional grounding**. This training encourages athletes to be kind to themselves, especially after a difficult or challenging performance.

Neurological benefits:

Activation of the insula and anterior cingulate cortex:

These areas are involved in **self-awareness** and **empathy**. By practicing self-compassion, athletes strengthen neural circuits related to self-care and emotional resilience.

Reduction of negative self-talk: Soft center exercises help reduce the brain's tendency toward negative rumination or harsh self-criticism, preventing athletes from mentally punishing themselves after a poor performance.

Increased oxytocin: Oxytocin, known as the «bonding hormone,» promotes feelings of well-being and connection. Self-compassion exercises stimulate the release of this hormone, improving mood and fostering positive emotions.

BENEFITS FOR THE ATHLETE:

- **Greater emotional resilience:** Athletes who practice self-compassion recover more quickly from disappointment and setbacks.
- **Improved self-esteem:** A soft center allows athletes to maintain confidence, even in the face of challenges or suboptimal performances.
- **Mental and emotional grounding:** Athletes can return to a calm, centered state, which helps in managing stress and fostering long-term emotional well-being.

INTEGRATED BENEFITS OF POST-PERFORMANCE NEURAL TRAINING

When combined, neural exercises focusing on **Unwind, Kick Back, Deep Mind, High Mind, Smooth It Out,** and **Soft Center** create a comprehensive recovery routine that ensures mental, emotional, and physical regeneration after intense athletic performance.

a) Complete Mental and Emotional Recovery

The unwinding and kickback exercises help athletes relax both mentally and physically, while deeper mental exercises like deep mind and high mind provide reflection and long-term motivation. Together, these exercises ensure that athletes process and learn from their experiences in a constructive, growth-oriented way.

b) Emotional Resilience and Long-Term Balance

Smooth it out and soft center exercises help athletes restore emotional balance and find inner peace, preventing burnout and promoting long-term well-being. This ensures that athletes not only recover physically but also maintain a healthy, resilient mental state.

c) Sustained Motivation and Growth

High mind exercises foster a growth mindset, encouraging athletes to remain motivated and focused on long-term development.

This mental framework helps athletes remain driven to improve, even when faced with setbacks.



STRUCTURED ROUTINES

STRUCTURED ROUTINE : REST & REPAIR CYCLE

In high-performance training, balancing stages of hard training and competition with intentional cycles of rest and repair is not just helpful; it's critical. The Rest & Repair Cycle emphasizes that true recovery goes beyond a single, simple «easy day» or «rest day.» Effective recovery requires a deeper, more structured approach that allows the body and mind to fully recharge and rebuild.

This routine involves a staged, three-day process, moving you through complete, repeated circadian cycles. These cycles are designed to support deep rest, promote tissue repair, and facilitate a comprehensive recovery process. By guiding you through each phase of rest and repair over multiple days, this approach provides a foundation for enhanced performance readiness and resilience.

This is the hallmark of intelligent neuro-athletics strategy—a strategic commitment to recovery that not only supports physical repair but also optimizes mental clarity and focus. With this approach, athletes are prepared to return to peak performance with renewed strength and endurance, ready to meet the demands of training and competition at their best.

DAY 1

Start your day

Go to Better Sleep Collection

Choose 6 AM - 9 AM and Select



Dawn



Day Break



Sunrise

Midday

Then Go to Neuro-Athletics Collection

Choose Psychological Training



Stabilization Exercise

Evening

Then Go to Better Sleep Collection

Choose 7 PM - 5 PM and select



Deep Dive

DAY 2

Start your day

Go to Better Sleep Collection

Choose 6 AM - 9 AM and Select



Dawn



Day Break



Sunrise

Midday

Then Go to Neuro-Athletics Collection

Choose Pre-Performance



De-Stress

Evening

Then Go to Better Sleep Collection

Choose 7 PM - 9 PM and select



Deep Sleep

DAY 3

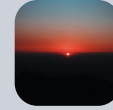
Start your day

Go to Better Sleep Collection

Choose 6 AM - 9 AM and Select



Dawn



Day Break



Sunrise

Midday

Then Go to Neuro-Athletics Collection

Choose Pre-Performance



Calm the Jitters

Evening

Then Go to Better Sleep Collection

Choose 7 PM - 9 PM and select



Sleepy Head

STRUCTURED ROUTINE : RESET SLEEP SCHEDULE.

Interrupted sleep cycles can quickly disrupt any training or performance schedule, impacting both physical readiness and mental focus. When sleep patterns become misaligned, it often takes more than a single day to regain balance. The Reset Sleep Schedule routine is a structured approach to re-establishing healthy sleep rhythms, promoting restorative rest, and rebuilding energy levels.

For those slipping into a disrupted sleep cycle, one or even two «Three Day Routines» may be needed to fully reset. By combining this sleep-focused routine with a couple of “easy days,” athletes can regain vitality and sharpen focus, without losing momentum in their training schedule. This targeted approach allows for a smoother transition back to high performance, ensuring that both body and mind are fully refreshed and ready for the demands of rigorous training.

DAY 1

Start your day

Go to Better Sleep Collection

Choose 6 AM - 9 AM and Select



Dawn



Day Break



Sunrise

Midday

Then Go to Better Sleep Collection

Choose 9 AM - 5 PM and select



Afternoon Rest

Evening

Then Go to Better Sleep Collection

Choose 7 PM - 5 PM and select



Deep Dive

DAY 2

Start your day

Go to Better Sleep Collection

Choose 6 AM - 9 AM and Select



Dawn



Day Break



Sunrise

Midday

Then Go to Better Sleep Collection

Choose 9 AM - 5 PM and select



Just Let Go

Evening

Then Go to Better Sleep Collection

Choose 7 PM - 9 PM and select



Deep Sleep

DAY 3

Start your day

Go to Better Sleep Collection

Choose 6 AM - 9 AM and Select



Dawn



Day Break



Sunrise

Midday

Then Go to Better Sleep Collection

Choose 9 AM - 5 PM and select



Sleep Angel

Evening

Then Go to Better Sleep Collection

Choose 7 PM - 9 PM and select



Sleepy Head

STRUCTURED ROUTINE : CORE BRAIN STRUCTURING

Simple things, done well, work well. Reinforcing core brain functions with simple, targeted neuro-exercises can yield surprising benefits. The Core Brain Structuring routine is designed to strengthen essential cognitive functions, laying the groundwork for more complex skills. By focusing on these foundational exercises, athletes can develop the reliability and precision needed to meet training demands effectively.

Complex skills depend on a strong base of simple, well-reinforced functions. This routine encourages stepping back to basics when certain tasks feel «off,» using core exercises as building blocks to realign focus and performance. Returning to simplicity allows athletes to address challenges effectively without overcomplicating solutions.

Incorporating these exercises regularly promotes mental clarity and adaptability, supporting both immediate performance and long-term growth. With consistent practice, the Core Brain Structuring routine builds a dependable foundation, empowering athletes to reach new heights in training and competition through well-tuned cognitive strength.

DAY 1

Start your day

Go to Neuro-Athletics Collection

Choose Neurological Training



Select Agility Exercise

Midday

Go to Neuro-Athletics Collection

Choose Pre-Performance



Select Target Focus

Early Evening

Go to Better Sleep Collection

Choose 5 PM – 7 PM



Select Slow It Down

DAY 2

Start your day

Go to Neuro-Athletics Collection

Choose Neurological Training



Select Intensity Exercise

Midday

Go to Neuro-Athletics Collection

Choose Pre-Performance



Select Burst Mode

Early Evening

Go to Better Sleep Collection

Choose 5 PM – 7 PM



Select Sunset

DAY 3

Start your day

Go to Neuro-Athletics Collection

Choose Neurological Training



Select Pattern Exercise

Midday

Go to Neuro-Athletics Collection

Choose Pre-Performance

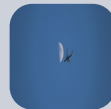


Select Task Mode

Early Evening

Go to Better Sleep Collection

Choose 5 PM – 7 PM



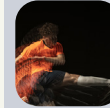
Select Moon Beams

DAY 4

Start your day

Go to Neuro-Athletics Collection

Choose Neurological Training



Select Speed Exercise

Midday

Go to Neuro-Athletics Collection

Choose Pre-Performance

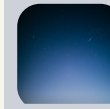


Select Burst Mode

Early Evening

Go to Better Sleep Collection

Choose 5 PM – 7 PM




Select Slow It Down

STRUCTURED ROUTINE : HABIT BUSTER #1

A dull and dreamy mindset can lead to a lack of focus and even strange, ritual-like behaviors. When you struggle to “tune in” to what’s important or, paradoxically, can’t “tune out” distractions, Habit Buster #1 acts like a “wake-up cold shower” for your brain. This powerful reset cuts through mental fog, helping you regain clarity and sharpen focus so you can tackle tasks with renewed energy and presence.

Start your day


Go to Neuro-Athletics Collection
Choose Unstick Stuck Training



Select Habit Buster #1


Midday

Go to Neuro-Athletics Collection
Choose Unstick Stuck Training



Select Habit Buster #1




Then Go to Neuro-Athletics Collection
Choose Psychological Training



Select Feeling it

Late Evening

Go to Better Sleep Collection
Choose 5 PM – 7 PM Select one of



Slow it Down Moon Beams Sunset

STRUCTURED ROUTINE : HABIT BUSTER #2

Getting stuck in an “antsy” or “edgy” anxious state can make focus and decision-making nearly impossible. When you find it hard to “chill” or relax, impatience and irritability often build up. Habit Buster #2 provides a much-needed release, helping you return to a stable mood and balanced thinking patterns. This routine feels both calming and relieving, allowing you to regain control and restore a sense of calm focus.

Start your day

Go to Neuro-Athletics Collection

Choose Unstick Stuck Training



Select Habit Buster #2

Midday

Go to Neuro-Athletics Collection

Choose Unstick Stuck Training



Select Habit Buster #2

Then Go to Neuro-Athletics Collection

Choose Psychological Training



Select Stabilization Exercise

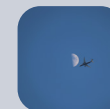
Late Evening

Go to Better Sleep Collection

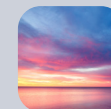
Choose 5 PM – 7 PM Select one of



Slow it Down



Moon Beams




Sunset

STRUCTURED ROUTINE : HABIT BUSTER #3

Habit Buster #3 has a broad range of benefits and could be considered the “default” Habit Buster routine when there are multiple indicators at play. It’s especially useful when you feel “off” or “stuck” in ways that are hard to exactly understand or identify. This routine helps you reset, offering a way to regain clarity and momentum even when the root of the issue isn’t entirely clear.

Start your day


Go to Neuro-Athletics Collection
Choose Unstick Stuck Training



Select Habit Buster #3


Midday

Go to Neuro-Athletics Collection
Choose Unstick Stuck Training



Select Habit Buster #3




Then Go to Neuro-Athletics Collection
Choose Psychological Training



Select New Moves

Late Evening

Go to Better Sleep Collection
Choose 5 PM – 7 PM Select one of



Slow it Down Moon Beams Sunset

STRUCTURED ROUTINE : HABIT BUSTER #4

Mental clarity paired with quick reaction speeds can make all the difference in performance. In cases where previous head injuries, even those that seemed minor, have impacted focus and decision-making, these abilities can feel frustratingly out of reach. Habit Buster #4 provides a neuro-reset that helps enhance brain reactions, offering a fresh start that can bring sharper clarity and responsiveness back into focus.

Start your day

Go to Neuro-Athletics Collection

Choose Unstick Stuck Training



Select Habit Buster #4

Midday

Go to Neuro-Athletics Collection

Choose Unstick Stuck Training



Select Habit Buster #4

Then Go to Neuro-Athletics Collection

Choose Psychological Training



Select Stabilization Exercise

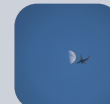
Late Evening

Go to Better Sleep Collection

Choose 5 PM – 7 PM Select one of



Slow it Down



Moon Beams




Sunset

STRUCTURED ROUTINE : HABIT BUSTER #5

When you feel “painted into a corner” with a brain that seems stuck and resistant to adaptive changes or learning, introducing a targeted Habit Buster routine can make all the difference. Whether dealing with long-term ADHD or simply a temporary phase of disrupted attention, Habit Buster #5 offers a concentrated approach to help settle things down. This routine provides a manageable path forward, bringing focus back on track and creating a clear, workable game plan.

Start your day


Go to Neuro-Athletics Collection
Choose Unstick Stuck Training



Select Habit Buster #5


Midday

Go to Neuro-Athletics Collection
Choose Unstick Stuck Training



Select Habit Buster #5




Then Go to Neuro-Athletics Collection
Choose Psychological Training



Select New Moves

Late Evening

Go to Better Sleep Collection
Choose 5 PM – 7 PM Select one of



Slow it Down Moon Beams Sunset






STRUCTURED ROUTINE : DAY BEFORE THE EVENT

Keeping your body loose and fresh, while also maintaining a clear, focused mind and steady emotions, can give you an edge even before the event begins. The Day Before the Event routine is designed to prepare both body and mind, helping you stay relaxed yet sharp as you approach a performance-based event. A restful night of sleep, which serves as a powerful boost, is essential—it's like magic, refueling your energy reserves and setting you up for success.



Start your day

Go to Better Sleep Collection
Choose 6 AM– 9 AM Select one of


 Dawn  Day Break  Sunrise

Midday

Go to Neuro-Athletics Collection
Choose Pre-Performance, Select




 De-Stress or  Target Focus

Then Go to Neuro-Athletics Collection
Choose Psychological Training

 Select New Moves

Late Evening

Go to Better Sleep Collection
Choose 5 PM – 7 PM Select one of

 Slow it Down  Moon Beams  Sunset

How to create a Playlist in NeuroVizr:



Create a Playlist for each day. For a more personalized and efficient experience, choose the first Session and navigate to the upper right corner of the menu and click on the "Create Playlist" option. Choose the next Session and add it to your new Playlist.

STRUCTURED ROUTINE : EVENING AFTER THE EVENT

The ability to “turn it off” after a performance event is crucial, not only for immediate recovery but also for sustaining long-term resilience—especially when faced with a schedule of repeated demands and limited recovery time. The Evening After the Event routine is designed to help you fully unwind both physically and mentally, allowing you to restore balance and prevent accumulated fatigue. This focused recovery ensures you’re refreshed and ready to take on your next challenge.

After Event




Go to Neuro-Athletics Collection
Choose Post-Performance, Select

Unwind or Kick Back

Early Evening




Go to Better Sleep Collection
Choose 5 PM – 7 PM Select one of

Slow it Down Moon Beams Sunset

Late Evening

Go to Better Sleep Collection
Choose 7 PM – 9 PM Select one of

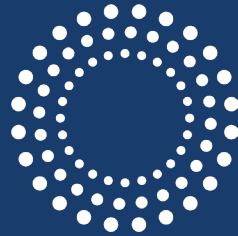
  

Deep Dive Deep Sleep Sleepy Head

How to create a Playlist in NeuroVizr:

Create a Playlist for each day. For a more personalized and efficient experience, choose the first Session and navigate to the upper right corner of the menu and click on the “Create Playlist” option. Choose the next Session and add it to your new Playlist.

ENGAGE. ENRICH. ENJOY.



  @NeuroVizr

www.neurovizr.com