



neurozone®



Neurozone® Science Library

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Introduction

Welcome to the Neurozone® Science Library

In this document, you will find a non-exhaustive selection of published, peer-reviewed articles that serve as a representation of the scientific reasoning and empirical evidence which inform the recommendations in Neurozone®'s products. It is important to note that this selection is ever evolving and continuously refined as new scientific evidence emerges. Please also note that due to copyright considerations we cannot provide full access to certain journal articles.

Articles are provided for each Path (i.e., behavior and/or emotional/cognitive state) to High Performance Readiness that Neurozone® assesses and recommends. The Paths are grouped under one of the 5 domains of High Performance Readiness: Rhythms, Energy, Connectors, Transformers, and Innovators.

Please click on the title of the article to be redirected to its web address.





Exercise Duration

- Exercise Prescription to Foster Health and Well-Being: A Behavioral Approach to Transform Barriers into Opportunities
- An Overview of the Beneficial Effects of Exercise on Health and Performance
- Exercise and well-being during COVID 19 – time to boost your immunity

Exercise Diversity

- Towards an understanding of the physical activity-BDNF-cognition triumvirate: A review of associations and dosage
- Impact of Different Exercise Modalities on the Human Gut Microbiome
- Exercise in Aging: Be Balanced

Mobility and Movement

- Well-being and mobility: A new perspective
- Relationships between indices of sedentary behavior and hedonic well-being: A scoping review
- Optimal Human Functioning Requires Exercise Across the Lifespan: Mobility in a 1g Environment Is Intrinsic to the Integrity of Multiple Biological Systems

High-Intensity Interval Training

- High-Intensity Functional Training: Molecular Mechanisms and Benefits
- Effects of High-Intensity Interval Training and Moderate-Intensity Training on Stress, Depression, Anxiety, and Resilience in Healthy Adults During Coronavirus Disease 2019 Confinement: A Randomized Controlled Trial
- Can high-intensity interval training improve physical and mental health outcomes? A meta-review of 33 systematic reviews across the lifespan

Cardio Exercises

- Effects of 8-week endurance and resistance training programmes on cardiovascular stress responses, life stress and coping
- Joggin' the Noggin: Towards a Physiological Understanding of Exercise-Induced Cognitive Benefits
- Intervention of adolescent' mental health during the outbreak of COVID-19 using aerobic exercise combined with acceptance and commitment therapy

Balance and Flexibility Exercises

- Effects of Yoga on Stress Among Healthy Adults: A Systematic Review
- Effect of Tai Chi on muscle strength, physical endurance, postural balance and flexibility: a systematic review and meta-analysis
- Acute effects of Pilates on mood states among young adult males

Strength Exercises

- Resistance training and health in adults: an overview of systematic reviews
- Effects of short-term, medium-term and long-term resistance exercise training on cardiometabolic health outcomes in adults: systematic review with metaanalysis
- Acute effects of strength and endurance exercise on serum BDNF and IGF-1 levels in older men

Dietary Balance

- Balanced diet is a major casualty in COVID-19
- The Association between Dietary Quality and Dietary Guideline Adherence with Mental Health Outcomes in Adults: A Cross-Sectional Analysis
- Diet and Mental Health: Review of the Recent Updates on Molecular Mechanisms

Intermittent Fasting

- Intermittent fasting contributes to aligned circadian rhythms through interactions with the gut microbiome
- A Time to Eat and a Time to Exercise
- Intermittent metabolic switching, neuroplasticity and brain health

Fruit and Vegetables

- Strategies to achieve a healthy and balanced diet: fruits and vegetables as a natural source of bioactive compounds
- Consumption of fruits and vegetables: improved physical health, mental health, physical functioning and cognitive health in older adults from 11 European countries
- High Fruit and Vegetable Consumption and Moderate Fat Intake Are Associated with Higher Carotenoid Concentration in Human Plasma

Alcohol Consumption

- Emotional processes in binge drinking: A systematic review and perspective
- Alcohol use and misuse during the COVID-19 pandemic: a potential public health crisis?
- Alcohol and Cardiovascular Diseases

Sleep Duration

- Sleep duration and health in adults: an overview of systematic reviews
- Association Between Sleep Duration and Cognitive Decline
- Sleep Duration Moderates the Relationship Between Perceived Work-Life Interference and Depressive Symptoms in Australian Men and Women from the North West Adelaide Health Study

Bedtime Consistency

- Consistency where it counts: Sleep regularity is associated with circulating white blood cell count in young adults
- Sleep timing, sleep consistency, and health in adults: a systematic review
- Association of bedtime with mortality and major cardiovascular events: an analysis of 112,198 individuals from 21 countries in the PURE study

Alarm Snooze Avoidance

- Snooze Button: How It Can Affect Your Mental Health
- Sleep: The Sound of a Local Alarm Clock
- Blunted Sleep-Time Relative Blood Pressure Decline Increases Cardiovascular Risk Independent of Blood Pressure Level—The “Normotensive Nondipper” Paradox

Screen Time

- The relationship between screen time and mental health in young people: A systematic review of longitudinal studies
- Digital screen time during the COVID-19 pandemic: a public health concern
- Association between cognitive measures, global brain surface area, genetics, and screen-time in young adolescents: Estimation of causal inference with machine learning

Bed Sanctity

- The effect of sleep hygiene training applied to hemodialysis patients on sleep quality and quality of life: randomized controlled trial
- Nocturnal cognitive arousal is associated with objective sleep disturbance and indicators of physiologic hyperarousal in good sleepers and individuals with insomnia disorder
- Pre-sleep cognitive activity in adults: A systematic review

Silencing the Mind Routine

- Psychobiological mechanisms underlying the mood benefits of meditation: A narrative review
- The Use of Mindfulness-Based Interventions to Mitigate Stress and Burnout in Nurses
- Testing a mindfulness meditation mobile app for the treatment of sleep-related symptoms in adults with sleep disturbance: A randomized controlled trial

Silencing the Mind Duration

- The Relationship Between Doses of Mindfulness-Based Programs and Depression, Anxiety, Stress, and Mindfulness: a Dose-Response Meta-Regression of Randomized Controlled Trials
- Effects of Length of Mindfulness Practice on Mindfulness, Depression, Anxiety, and Stress: a Randomized Controlled Experiment
- The relationship between mindfulness meditation and well-being during 8 weeks of ecological momentary assessment

Focused Attention

- Effects of Brief Mindfulness Meditation on Attention Switching
- Exploring mindfulness attentional skills acquisition, psychological and physiological functioning and well-being: Using mindful breathing or mindful listening in a nonclinical sample.
- Focused attention meditation training modifies neural activity and attention: longitudinal EEG data in non-meditators

Deep Breathing

- Mindfulness with paced breathing reduces blood pressure
- Effects of Diaphragmatic Breathing on Health: A Narrative Review
- Yoga Breathing, Meditation, and Longevity

Silencing the Mind Timing

- Smartphone Monitoring of Participants' Engagement With Home Practice During Mindfulness-Based Stress Reduction: Observational Study
- Mindfulness mediates the relationship between cognitive reappraisal and resilience in higher education students
- The Influence of Concentration/Meditation on Autonomic Nervous System Activity and the Innate Immune Response: A Case Study



Nature Time

- Nature contact, nature connectedness and associations with health, wellbeing and pro-environmental behaviours
- Health Benefits of Walking in Nature: A Randomized Controlled Study Under Conditions of Real-Life Stress
- Do Experiences With Nature Promote Learning? Converging Evidence of a Cause-and-Effect Relationship

Emotional Regulation

- Emotion dysregulation as a risk factor for psychopathology
- Emotion Regulation
- Flow in work teams: The role of emotional regulation, voice, and team mindfulness

Competitive Collaboration

- Deconstructing the shared leadership emergence process in entrepreneurial teams
- Intergroup competition with an endogenously determined prize level
- Inter-brain synchrony in teams predicts collective performance

Cognitive Diversity in Team

- Leading Diversity: Towards a Theory of Functional Leadership in Diverse Teams
- The influence of functional and geographical diversity in collaboration on product innovation performance in SMEs
- Re-examining the functional diversity–performance relationship: The roles of behavioral integration, team cohesion, and team learning

Social Diversity in Team

- How diversity promotes team creativity: Two bumpy roads to collective inspiration
- Workplace Diversity: Emerging Issues in Contemporary Reviews
- Diversity and firm performance: role of corporate ethics

Fear Filter

- Cortisol response to stress: The role of expectancy and anticipatory stress regulation
- The Effects of Experimentally Induced Rumination, Positive Reappraisal, Acceptance, and Distancing When Thinking About a Stressful Event on Affect States in Adolescents
- Pathways for Fear Perception: Modulation of Amygdala Activity by Thalamo-Cortical Systems

Self-Group Balance

- Impact of shared goals on knowledge hiding behavior: the moderating role of trust
- The essential tension between leadership and power: When leaders sacrifice group goals for the sake of self-interest.
- Towards a contingency model of knowledge sharing: interaction between social capital and social exchange theories



Identity in Personal Life

- Life Change, Social Identity, and Health
- Moving in social circles—social circle membership and performance implications
- Benefits of Membership: The Activation and Amplification of Group Identities in Response to Social Rejection

Identity in Work Life

- Knowing me, knowing us: Personal and collective self-awareness enhances authentic leadership and leader endorsement
- Exploration of identity construction in the workplace: A review of the literature
- Identity and identification at work

Belonging in Personal Life

- Sense of belonging as an indicator of social capital
- The Effect of Perceived Social Support on Personal Resources Following Minor Adversity: An Experimental Investigation of Belonging Affirmation
- Trust and Belonging in Individual and Organizational Relationships

Belonging in Work Life

- Identity Threats in Everyday Life: Distinguishing Belonging From Inclusion
- Productive and connected while working from home: what client-facing remote workers can learn from telenurses about 'belonging through technology'
- Making Organizations More Inclusive: The Work of Belonging

Trust in Personal Life

- Trust and social relationships in times of the COVID-19 pandemic
- Oxytocin changes behavior and spatio-temporal brain dynamics underlying inter-group conflict in humans
- The role of oxytocin in social bonding, stress regulation and mental health: An update on the moderating effects of context and interindividual differences

Trust in Work Life

- The Neuroscience of Organizational Trust and Business Performance: Findings From United States Working Adults and an Intervention at an Online Retailer
- Trust and performance in business teams: a meta-analysis
- Building and Maintaining Psychological Safety and Trust in Virtual Teams

Meaning in Personal Life

- Relational meaning in life as a predictor of interpersonal well-being: A prospective analysis
- What Are Meaningful Social Interactions in Today's Media Landscape? A Cross-Cultural Survey
- Measuring Three Distinct Aspects of Meaning in Life: The Multidimensional Existential Meaning Scale (MEMS)

Meaning in Work Life

- Purpose, Meaning, and Well-Being at Work
- Toward a "Meaningful Self" at the Workplace: Multinational Evidence From Asia, Europe, and North America
- Sustainable Development of an Individual as a Result of Mutual Enrichment of Professional and Personal Life

Entrustment in Personal Life

- Lack of a close confidant, but not depression, predicts further cardiac events after myocardial infarction
- Secretive and close? How sharing secrets may impact perceptions of distance
- Kindness as a Stress Reduction–Health Promotion Intervention: A Review of the Psychobiology of Caring

Entrustment in Work Life

- My Confidant, My Coworker: The Interpersonal Relationship of Work Spouses
- Changes in workplace practices during the COVID-19 pandemic: the roles of emotion, psychological safety and organisation support
- Attachments in the workplace: How attachment security in the workplace benefits the organisation

Cognitive & Affective Empathy

- Association between self-reported empathy and level of physical activity in healthy young adults
- Empathy as a driver of prosocial behaviour: highly conserved neurobehavioural mechanisms across species
- Empathy at work: The role of age and emotional job demands.

Freedom to Voice Opinion

- Affording Employee Voice: How Enterprise Social Networking Sites (ESNS) Create New Pathways for Employee Expression
- Distinguishing Voice and Silence at Work: Unique Relationships with Perceived Impact, Psychological Safety, and Burnout
- Upward Voice: Participative Decision Making, Trust in Leadership and Safety Climate Matter

Empathetic Response Style

- Compassion and Empathy as Transformative Intervention Approaches: The Management of Cyberbullying Issues Among Working Professionals
- Empathy in the Workplace: A Tool for Effective Leadership
- Emotional Intelligence and Authenticity



Financial Safety

- The Role of Financial Fragility and Financial Control for Well-Being
- Financial health as a measurable social determinant of health
- Financial Stress and Its Physical Effects On Individuals and Communities

Negative Thought Pattern Reduction

- Distinct patterns of thought mediate the link between brain functional connectomes and well-being
- Effects of modifying interpretation bias on transdiagnostic repetitive negative thinking.
- Cognitive behavioral based group psychotherapy focusing on repetitive negative thinking: Decreased uncontrollability of rumination is related to brain perfusion increases in the left dorsolateral prefrontal cortex

Destructive Habit Avoidance

- Dopamine and Addiction
- Collision of the COVID-19 and Addiction Epidemics
- Value, drug addiction and the brain

Humor

- From "Aha!" to "Haha!" Using Humor to Cope with Negative Stimuli
- Humorous Handling of Mistakes: A Personality or Culture-Specific Trait to Combat Adverse Health Effects?
- Laughter and humour for personal development: A systematic scoping review of the evidence

Enthusiasm

- Enthusiasm in the Development of Radical Innovations
- Effects of Attitude, Motivation, and Eagerness for Physical Activity among Middle-Aged and Older Adults
- Eagerness and Optimistically Biased Metaperception: The More Eager to Learn Others' Evaluations, the Higher the Estimation of Others' Evaluations

Curiosity

- Latent learning, cognitive maps, and curiosity
- Systems neuroscience of curiosity
- Within-person variability in curiosity during daily life and associations with well-being

Optimism

- Optimism versus pessimism as predictors of physical health: A comprehensive reanalysis of dispositional optimism research
- The Impact of an Optimism Training Intervention on Biological Measures Associated With Cardiovascular Health: Data From a Randomized Controlled Trial
- Psychological Health, Well-Being, and the Mind-Heart-Body Connection: A Scientific Statement From the American Heart Association

Gratitude

- Gratitude: being thankful is proven to be good for you
- Health Implications of Gratitude
- A new perspective on the social functions of emotions: Gratitude and the witnessing effect.

Internal Drive

- The Relationship between Self-Determined Motivation and Psychological Well-being, Life Well-being, and Workplace Well-being: A Canonical Correlational Study
- Job satisfaction and motivation: how do we inspire employees?
- From Positive Orientation to Job performance: The Role of Work Engagement and Self-efficacy Beliefs

Burnout

- Finding Solutions to the Problem of Burnout
- The Relationship Between Burnout, Depression, and Anxiety: A Systematic Review and Meta-Analysis
- Burnout is about your workplace, not your people



Learning Techniques

- Fostering Metacognition to Support Student Learning and Performance
- Teaching Students Effective Learning Strategies
- Personalized Learning for Adults: An Emerging Andragogy

Executive Function

- The impact of online brain training exercises on experiences of depression, anxiety and emotional wellbeing in a twin sample
- Brain Training Game Boosts Executive Functions, Working Memory and Processing Speed in the Young Adults: A Randomized Controlled Trial
- Improvements in Executive Function Correlate with Enhanced Performance and Functioning and Health-Related Quality of Life: Evidence from 2 Large, Double-Blind, Randomized, Placebo-Controlled Trials in ADHD

Involuntary Daydreaming Avoidance

- Involuntary cognitions in everyday life: exploration of type, quality, content, and function
- The Tendency for Experiencing Involuntary Future and Past Mental Time Travel is Robustly Related to Thought Suppression: An Exploratory Study
- A Qualitative Study of Daydreaming Episodes at Work

Flexible Interrogation

- Using a Fork as a Hairbrush: Investigating Dual Routes to Release from Functional Fixedness
- Teaching Critical Thinking and Problem Solving Skills
- Resilience and Higher Order Thinking

Divergent Thinking

- Divergent Thinking in Older Adults: Understanding its Role in Well-being
- Divergent Thinking in Survival Processing: Did Our Ancestors Benefit From Creative Thinking?
- Keeping Creativity under Control: Contributions of Attention Control and Fluid Intelligence to Divergent Thinking

Team Divergent Thinking

- Creativity at work: exploring role identity, organizational climate and creative team mindset
- Divergent Thinking and Brainstorming in Perspective: Implications for Organization Change and Innovation
- Interaction of Individual Traits and Perceived Team Learning Behaviors in Creative Thinking Attitudes: Examination of Creative Discussions in Small Groups