

## **The Role of EMDR in Overcoming Trauma in Sports**

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### **Introduction: Athletes and Trauma**

Athletes face general and complex sport-specific traumas through participation in athletics. The severity of experienced trauma varies widely from one athlete to another but often have common bases (Bennett et al., 2017; Grand & Goldberg, 2011). Sport performance is unlike any other endeavor and has lasting effects on the unconscious mind and body of an athlete. Sports trauma stored in the unconscious regions of the brain can cause a myriad of physical and mental issues that can have severe consequences on sport performance (Bennett et al., 2017).

Traditional cognitive therapies often fail to resolve sport performance disruption based in unprocessed trauma (Bennett et al., 2017). Athletes have difficulty pinpointing the origin of the problem since traumatic recollection is stored in the unconscious mind (Grand & Goldberg, 2011). The use of EMDR protocols in treating unprocessed trauma in athletes suffering sport performance dysfunction is explored. Expansion of EMDR's potential uses in performance enhancement are discussed and ideas for future research are presented.

### **Bilateral Stimulation and EMDR**

Bilateral stimulation is a powerful tool used to improve the symptoms of trauma. Using a rhythmic left-right pattern, bilateral stimulation can have a tremendous positive impact on traumatic or distressing thoughts and recollections. The treatment effects of bilateral stimulation are permanent and have a multitude of mental and physical health benefits (EMDR International Association, 2022).

Eye Movement Desensitization and Reprocessing (EMDR) is a specific type of bilateral stimulation. EMDR uses left-right eye movement to stimulate hemispheric processing in the brain (EMDR International Association, 2022). EMDR has many applications from reducing anxiety, creating a distancing effect on traumatic memories, and is also a highly effective treatment for post-traumatic stress disorder (EMDR International Association, 2022). EMDR can also promote relaxation, improve focus and concentration, and help to manage internal and external distraction (EMDR International Association, 2022).

### **Sport- Specific Trauma**

Athletes can be exposed to multifaceted traumas in the sports world. Injury is a common and somewhat expected occurrence when pushing the bounds of physical activity. Athletes routinely deal with varying severity levels of injury during their career. These injuries are not just physically damaging. They leave a trauma imprint on the unconscious mind (Grand & Goldberg, 2011). The unconscious residue of traumatic recollection of how the injury occurred can lead to the manifestation of psychological problems.

Witnessing an injury can have a traumatic effect on athletes. Even though the athlete witnessing the injury is not physically harmed, the experience can be mentally upsetting and cause second-hand trauma (Grand & Goldberg, 2011). Being present when another athlete is injured can provoke some of the same emotional responses as actually being injured.

Difficult or pivotal losses can be very traumatic for an athlete. This type of trauma is amplified if there are other problematic factors present such as humiliation in front of a large crowd of spectators or empathic failure on the part of a coach (Grand & Goldberg, 2011).

The nature of sports is such that many athletes suffer the effects of post-traumatic stress disorder. Hard falls, collisions, injuries, and losses can lead to a case of post-traumatic stress disorder in athletes (Grand & Goldberg, 2011). Since these events are inherent in athletics, the risk of an athlete developing symptoms of post-traumatic stress is very high (Chang et al., 2020).

Athletes who experience symptoms of post-traumatic stress disorder often have physiological symptoms that can cause increased muscular tension, hypervigilance, negative mood, and an increased startle response (Chang et al., 2020). Taken as a whole, these symptoms heighten the risk of injury and may cause a significant decline in performance (Grand & Goldberg, 2011).

Athletes with post-traumatic-stress disorder may adopt behaviors that allow for avoidance of triggers related to the trauma (Chang et al., 2020). This avoidance could include actions or settings that are necessary for their participation in sporting events (Chang et al., 2020).

Many times, athletes resist addressing the multipart and uncomfortable feelings associated with trauma. The culture of sports treats mental health struggles as taboo and stigmatizes athletes that experience mental health issues (Chang et al., 2020). This often leads to athletes attempting to suppress and ignore trauma. By denying the trauma and its after-effects, the problem grows larger. If the trauma remains unprocessed, mental health disorders may be triggered, and sport performance can decline (Grand & Goldberg, 2011).

### **Sport Performance Dysfunction**

Athletes experience a wide variety of sport performance problems. Virtually every sport has its own version of performance dysfunction and spontaneous skill loss (Grand & Goldberg, 2011). While physical in nature, sport performance dysfunction is rooted in psychological responses of the unconscious mind (Bennett et al., 2017; Grand & Goldberg, 2011). Intense levels of anxiety, exaggerated fear response, extraordinarily high cognitive activity, and negative self-talk underpin the athlete's experience of sport performance failure (Bennett et al., 2017).

The *yips* is a sport performance disorder in baseball that involves a spontaneous loss of the ability to aim throws. Players suffering from the *yips* will not be able to predict the direction, distance, or velocity of their throws (Kelly et al., 2020). Causality of onset is not physical in nature (Grand & Goldberg, 2011; Kelly et al., 2020). Oftentimes, the *yips* will strike a baseball player after a traumatic injury; other times it will appear with no identifiable trigger (Grand & Goldberg, 2011).

Conventional cognitive management therapy of the *yips* involves positive self-talk, deep breathing exercises, and controlling negative thoughts (Kelly et al., 2020). These conscious techniques do not access stored trauma and fail to resolve the sport performance problem (Grand & Goldberg, 2011; Kelly et al., 2020).

The *twisties* is a sport performance disorder in gymnastics that causes athletes to lose the ability to sense position in the air relative to the ground (Lanese et al., 2021). This sport performance issue causes an athlete to lose control over their body positioning and sense of direction.

A gymnast with the *twisties* will not be able to ascertain if they are horizontal or vertical, up or down, while performing aerial skills and maneuvers (Lanese et al., 2021). As with the *yips*, the cause of onset cannot be found in the body, physical treatments fail, and unprocessed trauma remains stored in the brain (Grand & Goldberg, 2011; Kelly et al., 2020; Lanese et al., 2021).

The *yips* and the *twisties* involve very different sport performance mechanisms but are both triggered by a compromised connection between mind and body function (Kelly et al., 2020; Lanese et al., 2021). The disconnect between the mental and the physical leads to muscle memory failure, and results in a regression of previously mastered skills (Grand & Goldberg, 2011).

Since the cause of the *yips* and the *twisties* has no physical etiology, conscious and cognitive treatments fail to correct the problem and can often lead to conditions where it is too dangerous for an afflicted athlete to continue participating in sports (Kelly et al., 2020; Lanese et al., 2021).

Since it has been established that there is no physical origin, the answer to treating sport performance dysfunction may be found in the mind. Unprocessed, unconscious trauma residue can inflict a massive emotional toll that remains outside of an athlete's awareness. This emotional response activates the sympathetic nervous system and physical symptoms detrimental to performance flood the body (Grand & Goldberg, 2011). EMDR's therapeutic benefits can help to counteract this devastating cascade effect (EMDR International Association, 2022).

### **Performance Blocks**

Performance blocks are a specific type of sport performance disorder wherein movement is disrupted, resulting in a complete inability to execute a physical skill that was once engrained in muscle memory (Bennett et al., 2017). Performance blocks involve many of the same psychological components as generalized sport performance dysfunction such as extreme anxiety, intense cognitive activity, loss of physical control, high fear response, and negative intrusive thoughts. Performance blocks include the added component of frozen movement and momentary losses of cognitive function and muscle control (Bennett et al., 2017).

Much like sport performance dysfunction, performance blocks are not of physical etiology and there is a dearth of treatment options (Bennett et al., 2017). While the manifestation of performance blocks is physical in nature, psychological factors are the driving force behind performance blocks. The mind is in overdrive and unable to focus on the task demanded by the moment and the body loses coordination and cannot perform as expected (Bennett et al., 2017).

The explanation for performance blocks, just as in sport performance dysfunction, can be found in unprocessed memories attached to previous traumatic experiences. Real-time stimuli activate recollection of the stored trauma and emotional and somatic symptoms attached to the original event resurface (Bennett et al., 2017). Performance blocks have the added complication of extreme hyperarousal, which manifests as momentary lapses in physical coordination and movement control (Bennett et al., 2017).

EMDR protocol is extremely beneficial in resolving performance blocks. With its ability to go beyond traditional cognitive therapies, EMDR allows for shifts in the brain's response to trauma stimuli (Bennett et al., 2017). This results in a transition from negative beliefs and fearful responses to present-moment rational thinking. Post-processing cognitive activity is reduced, and detachment from the emotions surrounding the original trauma are realized (Bennett et al., 2017). Cognitive activity is controlled, mindful performance is possible and previously diminished physical skills are returned to normal functioning (Bennett et al., 2017). Spasms, freezes, temporary paralysis, and blocks no longer occur.

### **EMDR and Golfers**

Golfers suffer heightened incident rates of performance disorder resulting from trauma than athletes in other sports (Curdt & Eggleston, 2019). The demands of golfing performance call for extremely high levels of sustained focus and concentration. An intrinsic factor present in the game of golf is that there are extended durations of inactivity in between shots. This allows for increased cognitive activity and internal rumination (Curdt & Eggleston, 2019). As previously discussed, it is highly unlikely that athletes can avoid experiencing a sports-related trauma during their career, and this fact is especially applicable to golfers (Curdt & Eggleston, 2019; Grand & Goldberg, 2011).

Golfers also report more frequent difficulties with negative intrusive thoughts during sport performance (Curdt & Eggleston, 2019). When setting up a challenging shot, golfers often re-experience past mistakes, losses, and failures. This has a detrimental effect on confidence levels and makes positive self-talk nearly impossible to execute. Being pulled backwards into previous traumas take golfers out of the present moment and intensify anxiety. Muscle tension and concentration issues disrupt flow and muscle memory. This compounded physical and mental response leads to varying levels of sport performance dysfunction (Curdt & Eggleston, 2019).

Evolving EMDR techniques used in treating post-traumatic stress disorder provide an answer to improving sport performance disorder among golfers (EMDR International Association, 2022). Treatment with EMDR has helped golfers stay present during pivotal competitive moments, greatly improved distraction blocking, and promoted elevated levels of focus and concentration (EMDR International Association, 2022).

Additionally, golfers using EMDR for sport performance enhancement reported less frequent negative intrusive thoughts and a reduction in distressing recollections of past sports trauma (Curdt & Eggleston, 2019).

When sports trauma did surface during competition, golfers using EMDR treatment describe a distancing effect of the emotional impact of previous trauma and a dramatic lessening of physically disruptive symptoms (Curdt & Eggleston, 2019).

### **EMDR and Gymnasts**

EMDR therapy has been demonstrated to be effective in helping gymnasts overcome sport performance dysfunction after suffering hard falls and returning to sports after recovering from an injury (Falls et al., 2017). As discussed, hard falls and injury are examples of sport trauma that, if unprocessed, can lead to pathological performance issues and psychological problems among athletes (Grand & Goldberg, 2011). EMDR was found to decrease anxiety, strengthen goal setting, promote positive self-actualization, increase mindfulness during performance, and control against distraction (Falls et al., 2017). Moreover, gymnasts who utilized EMDR techniques reported less emotional arousal when presented with triggers of past trauma (Falls et al., 2017).

### **EMDR and Swimmers**

EMDR protocols not only help to ease the emotional effects of trauma for athletes, but it also produces compelling physical benefits. EMDR was used on swimmers who had suffered trauma and were experiencing decreased sport performance. These athletes also reported distressing symptoms related to increased anxiety. With this group of athletes, EMDR generated both physical and emotional benefits (Graham & Robinson, 2007).

The swimmers who participated in EMDR therapy showed a marked reduction in anxious emotional response (Graham & Robinson, 2007). These athletes also experienced physical health benefits from treatment with EMDR. Swimmers who underwent EMDR had lower standing heart rates and saw improved swim times during competition (Graham & Robinson, 2007).

The reasoning that underpins these findings is based on the impact of EMDR on coping skills. Since traumatic recollections do not possess the same emotional intensity, re-experiencing events are no longer emotionally disruptive to EMDR patients (EMDR International Association, 2022). This distancing effect creates an environment where the brain no longer produces intense physical sensations in response to trauma stimuli (EMDR International Association, 2022).

Athletes using EMDR to cope with trauma halt the emotionally distressing aspect of the traumatic re-experiencing response which, in turn, prevents the physical symptoms of trauma recollection from manifesting (EMDR International Association, 2022). The prevention of emotional and physical response allowed swimmers to remain focused on their goals, experience present mind awareness, and sharpen focus (Graham & Robinson, 2007). Free from negative cognitive activity, flow states have space to engage, and performance is markedly improved (Graham & Robinson, 2007).

### **Conclusions**

Based on the findings of this discourse, the author recommends that EMDR be used much more broadly in athletics to treat sport performance dysfunction and for performance enhancement purposes. Since EMDR has virtually no negative side effects, the obvious benefits seem to far outweigh the risks of implementation in the sports world (EMDR International Association, 2022). Since athletes are exposed to frequent traumas and EMDR is highly effective in easing the symptoms of unprocessed or lingering trauma, the mental health benefits are manifold (EMDR International Association, 2022; Grand & Goldberg, 2011). The easing of emotional distress is not simply a quality-of-life improvement; EMDR treatment also produces real physical health effects that positively impact sport performance (Graham & Robinson, 2007).

## **Future Research**

Future research should be directed toward uncovering potential links between sports that involve inherent bilateral stimulation (i.e., running) and lower incident rates of mental health issues among those athletes as compared to the general athlete population. The characteristics and nature of sport performance dysfunction in sports with routine bilateral stimulation can be analyzed in conjunction with psychological disorder frequency.

While there has been no direct research performed on athletes, a study was conducted that investigated the connection between running practice, anxiety levels, and cognition in unaccompanied asylum-seeking minors. The bilateral stimulation inherent in running practice was shown to have a substantial increase in positive cognition and marked decrease in anxiety on the migrant children (Draper et al., 2020). The findings of this study are exciting and present a potentially groundbreaking pathway in the use of bilateral stimulation to promote improved cognition in athletics and expands the application and understanding of the EMDR modality.

## **References**

- Bennett, J., Bickley, J., Vernon, T., Olusoga, P., & Maynard, I. (2017). Preliminary Evidence for the Treatment of Performance Blocks in Sport: The Efficacy of EMDR With Graded Exposure. *Journal of EMDR Practice and Research*, 11(2), 96–110. <https://doi.org/10.1891/1933-3196.11.2.96>
- Chang, C. J., Putukian, M., Aerni, G., Diamond, A. B., Hong, E. S., Ingram, Y. M., Reardon, C. L., & Wolanin, A. T. (2020). Mental Health Issues and Psychological Factors in Athletes. *Clinical Journal of Sport Medicine*, 30(2), e61–e87. <https://doi.org/10.1097/jsm.0000000000000817>
- Curdt, A., & Eggleston, B. (2019). Efficacy of EMDR in Athletic Traumas. <https://doi.org/10.35831/scpr/ac.9-19-2019>
- Draper, A., Marcellino, E., & Ogonnaya, C. (2020). Fast Feet Forward: Sports training and running practice to reduce stress and increase positive cognitions in unaccompanied asylum-seeking minors. *Counselling and Psychotherapy Research*, 20(4), 638–646. <https://doi.org/10.1002/capr.12330>
- EMDR International Association. (2022). About EMDR Therapy. EMDR International Association. <https://www.emdria.org/about-emdr-therapy/>
- Falls, N., Barker, J. B., & Turner, M. J. (2017). The Effects of Eye Movement Desensitization and Reprocessing on Prospective Imagery and Anxiety in Golfers. *Journal of Applied Sport Psychology*, 30(2), 171–184. <https://doi.org/10.1080/10413200.2017.1345999>
- Graham, L., & Robinson, E. (2007). Effect of EMDR on Anxiety and Swimming Times [Review of Effect of EMDR on Anxiety and Swimming Times]. *Journal of Clinical Psychology*. [https://www.researchgate.net/publication/254567629\\_Effect\\_of\\_EMDR\\_on\\_anxiety\\_and\\_swimming\\_times](https://www.researchgate.net/publication/254567629_Effect_of_EMDR_on_anxiety_and_swimming_times)
- Grand, D., & Goldberg, A. S. (2011). *This is your brain on sports: beating blocks, slumps and performance anxiety for good!* Dog Ear Publishing.
- Kelly, M. (2020, October 14). These players famously battled the “yips.” MLB.com. <https://www.mlb.com/news/players-who-had-the-yips>
- Lanese, N. (2021, July 31). What’s happening inside Simone Biles’ brain when the “twisties” set in? *Livescience.com*. <https://www.livescience.com/simone-biles-what-are-twisties.html>