



MINDFULNESS

THE NEXT FRONTIER
IN SPORT PERFORMANCE



FREE STATE
ACADEMY OF SPORT

CONTROL



“YOU DON’T HAVE TO
CONTROL YOUR THOUGHTS;
YOU JUST HAVE TO
STOP LETTING THEM
CONTROL YOU.”

Dan Millman

INTRODUCTION

“You don’t have to control your thoughts; you just have to stop letting them control you.” Dan Millman

Millman’s words capture a core belief of mindfulness and mindfulness-based approaches to performance enhancement in sport, namely how athletes relate and respond to thoughts is often more of a problem than the content of the thoughts. This is often seen when speaking to an athlete regarding their thoughts. Athletes are often asked: “Do you believe everything you think?” Or, the same may be said about feelings and body sensations. Just because the athlete feels incompetent as an athlete does not mean that athlete is actually incompetent, regardless of how intense or compelling the feeling might be. Athletes tend to relate to thoughts, feelings or sensations as though they are (a) *accurate*, (b) *equivalent to external reality*, (c) *law-like* – meaning the athlete has to conform behaviour to the thought content and (d) *equivalent to the identity of the athlete*. However, athletes rarely relate to these thoughts as (a) frequently inaccurate, (b) separate from external reality, (c) arbitrary – the athlete can choose a different course of action and (d) separate from the identity of the athlete. Sport psychologists often engage athletes to explore these relationships with their own thoughts, feelings and sensations.

This might make so much sense to many athletes, others might not want to scratch where it is not itching. But in reality, thoughts, feelings and sensations rule the actions of athletes. If the athlete is thinking that he can’t win against a specific opponent, or he is feeling extremely anxious or the sensation of doom hits him before a match, the body will believe it and act accordingly. Until this relationship has been worked on, the body will react similarly in each ‘frightening’ situation. It might be that the situation is only a match or a competition and not really frightening, but the body responds accordingly. This is where mindfulness comes in and where ‘peace’ is made with thoughts, feelings and sensations (awareness) in a non-judgmental way.

Although performance anxiety may not affect every athlete, a hefty number of young athletes are prone to feeling anxious or even self-conscious about their abilities and their performance in the sporting arena. Athletes train to improve their skills to combat their fear of failure. The better the skill, the less mistakes can be made and the better the outcome. Yes, this is certainly true. It is called muscle memory. But, neglecting the mind and thinking that the mind won’t have an impact on performance is careless.

Mindfulness is the act of moment-to-moment non-judgmental awareness. It is an increasingly popular concept and has been adapted into many treatment options. Research shows that practicing mindfulness can be beneficial for non-clinical populations including athletes. *Excessive anxiety*, expectations to be *perfect* and *fearing defeat* are three aspects that can hinder athletic performance during competitions where there are little room for error. **Mindfulness can help athletes detach from rigid, repetitive thought patterns, emotions and behaviours that have solidified through extensive sport training. It teaches athletes to focus on experiences in the present moment.**

By integrating mindfulness practices, it can help the athlete to identify stressors, reflect on their situation and subsequently adapt accordingly. By making themselves aware of what makes them anxious, the reasons behind the anxiety and how they can improve their state of mind, young athletes can alleviate unnecessary, inhibiting stress and allow them to perform to the best of their abilities.

In addition, mindfulness can also encourage more positive self-talk that replaces negativity and pessimism. **Adopting a present-moment orientated attitude as opposed to one that dwells on past mistakes or worries about future challenges or the outcome of the competition can allow athletes to handle the task at hand more realistically and effectively.**

AWA R E N E S S

WHAT IS CONFIDENCE? WHAT IS MINDFULNESS?

Confidence is essentially thinking that you can do a specific thing / task. Confidence is not “I can”. Confidence is: “That looks hard – I think I have the skills to match it”. Confidence comes from one place – **what you say to yourself**. It is not built on past success, although past success certainly influence it. This means, since we are responsible for what we say to ourselves, **confidence is a trainable**. It is a trainable skill and it is 100% under our control. Many athletes struggle with confidence especially in important competitions. Looking a bit deeper, one might notice that the crux of the situation is that young athletes are not taught the mechanics of confidence, which is self-talk. There are two basic camps of self-talk – positive, productive self-talk and critical, destructive negative self-talk.

Let’s go one step closer to mindfulness. There are certain exercises which can be done to quiet the destructive, negative self-talk and enhance the productive, positive self-talk. **It starts with awareness**. One aspect relating to the psychology of excellence is becoming aware of the inner experience. Then having the tools and skills to navigate it, to make it better. One of the great practices to increase awareness is **mindfulness**. Mindfulness training has been around for more than 2600 years. Mindfulness is a structured mindset to being aware of the present moment, experiencing it in an accepting, non-judging and non-avoiding way, which could be understood as a state or trait. Mindfulness is increasingly considered meaningful for sport psychological training approaches.

Mindfulness has two basic core principles. **One is awareness and one is wisdom. And the connection between the two is the present moment and insight.** What should the athlete be aware of?

It is awareness of:

- » Thoughts
- » Emotions
- » Body sensations
- » Unfolding environment around them

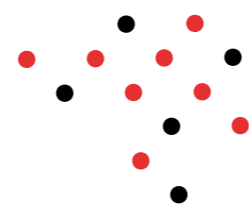
Athletes just being aware of their situation, will already greatly impact their performance, but it will fall short of the deeper part of mindfulness which is wisdom. Wisdom cannot be bought or transferred from one person to another, nor can it be acquired by reading a book on wisdom. It has to be earned. So how is it earned? It is earned through spending increased amounts of time in the present moment. So in a tough competition or match, mindfulness will come to its full effect when one present moment is linked to another present moment and that moment is linked to another present moment. That’s where high performance is expressed. And it is also where wisdom is revealed through insight.

What are the aspects which pulls the athlete out of the present moment? Critique / Judgement. The athlete saying things like: “This isn’t good enough” “I’m not good enough” “I can’t do this” “I am weak” All of that negative, destructive thinking pulls the athlete away from the present moment. That is the ‘game inside the game’.

What is the solution for athletes here? It is the skill to go from a negative, critical mind to a productive, positive mind. Many athletes have tried to get out of a negative mindset by repeating phrases over and over again, to the point where it only becomes words and has no actual impact on them. Things like: “You can do it” “Just focus” “Stay in the moment” – these are often referred to as naïve optimism – it is almost as if the athlete is making stuff up and not realizing the present situation. Athletes need to earn the right to be optimistic by finding the things that can be good and building a framework around it as opposed to being naïve. Let’s take an example: Replace saying things like: “Hey, just be positive, everything will work out good” **with** “You know what, I put in the hard work. I’ve trained hard for this competition. I’m in good form. I love a challenge”. This type of confidence-building mechanism works really well.



IT STARTS
WITH
AWARENESS.



STAY IN THE MOMENT.

Can athletes do a specific exercise to improve their awareness? Yes, by getting to know their mind. It is important for athletes to understand how one thought can lead to another thought and how emotions are encapsulated in these thoughts.

Let's take the example of a 400m hurdler– during warm-up, the athlete feels that his rhythm is slightly off, but is *avoiding* this situation. A couple of minutes before the race, this thought pops up again. This thought leads to the next, which is "If my rhythm is off, I'm going to struggle fitting in my steps". Within a matter of minutes, anxiety levels have escalated and emotions are off the chart. This is an example of a **destructive thought pattern**.

The other side is also true. Let's take another example: A tennis player competing in an important tournament is facing a tough opponent which she has never beaten before. The athlete starts off with one thought – "I've worked extremely hard the last couple of weeks, training more than 3 hours per day. I feel ready". Close

to the athletes walking onto the court, the athlete reminds herself of the following: "I'm going to stick to my game plan, trust that my preparation has been sufficient and give it my all". The game starts and the athlete's emotions are positive and not destructive. Yes, there is anxiety, but only enough to get the body going. This is an example of a **constructive thought pattern**.

Athletes are able to train these scenarios before the competition / race by keeping a journal. Athletes will write down what is going on in their mind. The thoughts which are present days before, hours before and minutes before competition. Let's take a look at this type of journal. There will be 3 columns. The 1st column will be for destructive thoughts that the athlete don't want to have anymore. The thoughts keeping the athlete back. The 2nd column will be for productive thoughts, the thoughts that fire the athlete up. The 3rd column will be the 'back it up' column – for every productive thought that was written down, you give 3 reasons that give you the right to say that specific thing.

This means the athlete needs real experiences in his life that will anchor them.

Let's take the tennis player again as an example

DESTRUCTIVE THOUGHT	POSITIVE THOUGHT	BACK IT UP
I always serve a double on critical points	I want to serve out wide on his backhand (game plan)	<ul style="list-style-type: none"> » I've practiced this serve over 100 times » I'm less stressed when I focus on the game plan and ball placement » My kick serve out wide is one of my strong points

Table 1: Thought journaling

This destructive thought is so common in all tennis players. The dreaded double fault. Especially on game points or even match points. By changing the thought, the athlete will be able to focus on the process and not the outcome. The athlete will be able to trust his training and countless hours on the court. The athlete will be able to get to the situation where they are able to synchronize their competition state with their training state.

This type of journal can be done for numerous thoughts. As soon as the athlete then realizes that a specific destructive thought is taking over their mind, they are able to consciously change their thought pattern and have the confidence to do the action. **By being aware of the narrative that is either constricting the athlete or creating freedom is part of mindfulness.** The more space the athlete has, the more freedom they have to play / compete and usually, the better things will go.

MINDFULNESS VS MINDLESSNESS

Athletes are typically faced with decisions related to performance and wellbeing before, during and after a competition. If they are relating to thoughts, feelings and sensations in the usual manner (i.e. as accurate, equivalent to external reality, law-like and one's identity) and the content is negative, the consequences can be detrimental. This could lead to avoidance, distractibility, preoccupation, reduced effort, self-handicapping, increased anxiety and hostility.

So how does mindfulness factor into these beliefs? Mindfulness is a prescription for how to potentially change these inner relationships between an athlete's

observing self and the thoughts, feelings, and body sensations that are observed. It would help the athlete to not be controlled by these feelings, emotions and sensations. Hence mindfulness is almost seen as a compassionate awareness of present-moment thoughts, feelings and sensations as well as the environment.

In contrast to mindfulness, the concept of mindlessness is proposed. It is described as simply going through the motions or automatically responding; a state of mind that is vulnerable to mistakes, unnecessary difficulties and predetermined outcomes. Mindfulness practices (e.g. meditation, mindful stretching, mindful eating) promote dispositional mindful awareness of daily life (i.e. activities, inner experiences, reactions to experiences).

MINDFULNESS VS TRADITIONAL SPORT PSYCHOLOGY

Athletes and coaches might notice this approach differs from traditional beliefs and assumptions about mental skills-performance links. The differences between the 2 learning schools might get confusing. However, opening up to a new field of performance enhancement tools is exciting to say the least. Traditional sport psychology practices tend to emphasize active attempts to control inner experiences such as thoughts, feelings and sensations, whereas mindfulness-based approaches tend to emphasize a frequently counterintuitive acceptance of these experiences. The main aspect to remember is that each athlete will prefer a different approach and it is important to realize that before attempting a new venture.

RESEARCH INTO MINDFULNESS

Research into mindfulness has started a few years ago, especially into the field of sport. Research was done at the French Institute of Sport in Paris with 7 young, elite golfers, which were previously instructed in PST (psychological skills training). They participated in a 4 month course of mindfulness training. They completed pre-recorded guided meditation exercises two times per week independently. The researchers trained them in an applied exercise routine to encourage assimilation of the learned mindfulness skills. These golfers were taught to scan both the body and environment and be aware of the circumstances they found themselves in, yet the researchers trained them to focus on the target, trajectory and required club. At the end of the season the researchers compared the mindful golfers to the control group from another training centre that underwent the same initial PST training. The mindful group all improved in national ranking, while only 2 of the 6 golfers in the control group improved. All of the mindful golfers reported an improvement in performance since the start of the research project.

To determine if mindfulness improves performance in a sport which requires a broader awareness, such as football, a study was conducted at the University of Tehran. The study looked at how mindfulness could affect performance and anxiety levels of young football players. 15 Players received 30 minutes guided meditation training twice a week for 6 weeks. The control group consisted of 15 players who did not receive any intervention. Sport anxiety questionnaires and shooting performance tests were performed by both groups before and after the 6 weeks. The results illustrated that the anxiety scale scores decreased and the performance scores increased in the intervention group, significantly more than in the control group.

It can be seen when these two research studies are compared that the dosage of mindfulness training and protocols differed profoundly between the golfers and the football players, however both of the studies showed improvements in performance. These findings led to sport psychologists questioning just how mindfulness works and how it can be incorporated into sport performance.



Let's have a look into some more research and how the current protocols / interventions have started out. The 1st study incorporating mindfulness into sport was conducted by Jon Kabat-Zinn, the developer of mindfulness-based stress reduction (MBSR in 1990). In the study collegiate rowers reported being better equipped to handle sport-related pain, fatigue and negative thoughts. In addition an increased ability to concentrate and relax during competition were seen. Since that time, a number of mindfulness-based interventions for athletes have appeared:

- » Mindfulness-Acceptance-Commitment approach (MAC)
- » Mindfulness meditation training for sport (MMTS)
- » Mindful sport performance enhancement (MSPE)

Mindfulness-based modalities are often called the third wave of behavioural and cognitive therapies. The 2nd wave (traditional cognitive-behavioural therapy / CBT) tends to emphasize changing maladaptive thoughts, feelings and sensations. **The 3rd wave emphasizes changing the relationship individuals have with these passing inner experiences – e.g. mindfully observing a self-critical thought, accepting it as inaccurate and letting it pass with compassion and without taking it personally or acting on it.**

I'VE TRAINED HARD.

Gardner and Moore (2004) contrasted traditional psychological skills training approaches in sport psychology with mindfulness, pointing out that **efforts to control, eliminate or replace thoughts and emotions, for some athletes, can introduce other task-irrelevant thoughts and processes and ultimately disrupt performance.** Let's look at a practical example of this – coaches have all seen this in athletes – a badminton player using traditional sport psychological skills approaches to change thought processes may notice negative self-talk as he waits for his next game. The player then spends time to reframe, alter or stop this internal dialogue and is diverting their attention 'inward'. For those few minutes, the player's attention is away from external clues such as a discussion by the coach about the game plan. The coach usually picks up on this and it might seem that the athlete is dazed out. Now, this happens often in a game / competition and for those seconds / moments / minutes that the athlete is trying to divert negative thoughts or convert negative thoughts into positive thoughts, he/she might lose out on certain cues, such as body language of the opponent, environment changes, cues from the coach etc. If you ask the athlete afterwards if they noticed a specific thing, they will usually be completely blank.

It is due to these constant changing of thoughts, emotions, feelings and sensations that athletes are not able to just be present, be in the moment and react to what is coming their way. This is in addition

to worrying about the outcome of the competition. If you ask athletes about this, they will probably concur and conclude that they don't want to be 'thinking psychology' during a competition, but rather just be executing what they have learnt the last couple of months. Often times, they refer to the following: "I just wish I could cut off my head and just play / run". To not have anything going on in my mind." What they are referring to is not an automotive state of doing this, but a clarity of conflict between thinking positively and negatively, as they have often been told if they think negative thoughts, the outcome will be negative. What a situation to be in.

It was with this background that Gardner and Moore concluded that consistent high performance in sport requires, in part, mental awareness of task-relevant external cues; nonjudgmental and nonreactive awareness of internal thoughts, feelings and physical sensations; and clarification of values paired with values-based behaviour. In addition they recommended that optimum self-regulation requires low levels of self-criticism, watchfulness and worry concerning performance outcomes. In response to these proposals, Gardner and Moore suggested that athletes could be better served accepting thoughts, emotions and sensations rather than aggressively striving to modify, control or suppress them. This led to the MAC approach.

MAC Approach (Mindfulness-Acceptance-Commitment)

Athletes are taught to observe and accept a wide series of thoughts, feelings and sensations rather than attempt to change or defeat them and to refocus on task-relevant cues. It includes 7 modules that emphasize valued goal-directed behaviour and non-judgmental acceptance of internal experiences (2007). The value of the MAC approach includes:

- » Enhancements in experiential acceptance
- » Improvement in mindfulness
- » Enhancement in sport performance
- » Improvement in psychological distress

The 7 modules discussed are:

1. The rationale and goals of the MAC approach as well as an explanation of the role of self-regulation of attention in sport performance, the importance of

self-awareness. It also includes an introduction into allowing thoughts and emotions to be experienced without them affecting performance

2. Introduce the concept of mindfulness. Athletes are provided instructions on engaging mindful awareness with the goal to become more self-aware and experience thoughts, emotions or aspects of the athletic situation without reacting to them
3. Next is values-driven behaviour. Athletes identify values and learn the importance of acting in a manner which is consistent with these values instead of being influenced by thoughts and emotions.
4. Athletes are taught the concept of acceptance as the ability to accept negative internal and external events without them affecting behaviour
5. Specific behaviours and situations are defined so that athletes can practice mindfulness, commitment and acceptance skills
6. Potential obstacles to mindfulness, commitment and acceptance are explored
7. Future practice of these skills are planned

Mindfulness meditation training for sport (MMTS)

It uses 12 short sessions that occurs twice a week that focus on increasing mindfulness through meditation exercises to adopt concentration, open awareness and acceptance. Mindfulness meditations has been around for thousands of years to improve focus and treat psychological problems. Through mindfulness, the individual seems to 'do nothing' to the feelings and thoughts experienced. Mindfulness meditation has been described as 'the intentional self-regulation of attention from moment to moment'. It assists athletes to improve their attention and improve their performance. It assists athletes to reduce negative emotions. Emotional regulation is very important for every athlete to achieve optimal performance. They are able to develop a better ability to blank out distracting emotional stimuli and fully focus on the task at hand, i.e. competing. Previous research has shown that mindfulness meditation training can act like a buffer to stress. Hence mindfulness meditation has its own beneficial effect on various measures of stress. In addition to improving attention, it also assists with the memory process.

Mindful sport performance enhancement (MSPE)

There is a growing recognition that specific internal states, such as 'flow' in sport performance and mental skills such as attention and emotional regulation, all of which are critical to peak performance in sport, are theoretically consistent with mindfulness and can be strengthened through mindfulness practice. Tapping into this connection, MSPE is a specific, structured and easy to follow programme that trains the athlete and the coach to approach sport with mindful awareness as well as acceptance. This could potentially improve performance and enjoyment. The goal of MMTS is to enhance attention, poise (improving relationship with aversive thoughts, feelings and sensations) and adaptation.


MSPE is a 6 session, group-based intervention that contains educational, discussion and experiential components as well as daily home practice. The training can be easily adapted to any sport or level of participation (i.e. national vs a beginner). The exercises are taught in a sequence which moves the athlete from a sedentary practice to mindfulness in motion, culminating sport-specific meditation that involves paying mindful attention while engaged in core movements of their sport. The goal is to incorporate mindfulness more informally into training, competition and life beyond sport.

MSPE has recently shown in research studies to increase mindfulness, disposition and state flow, life satisfaction and performance of the athlete. It also significantly reduces sport-related anxiety, thought disruption during a match or competition, experiential avoidance as well as difficulties in emotional regulation.

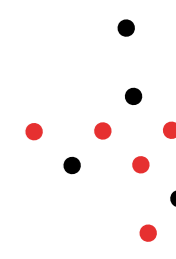
PHYSICAL & MENTAL BENEFITS OF MINDFULNESS INTERVENTIONS

A growing evidence base supports using mindfulness to enhance the wellbeing and performance of athletes. Randomized controlled trial studies examining mindfulness-based programmes have demonstrated the following:

- » Reduced anxiety
- » Reduced depression
- » Reduced body complaints (i.e. pains & aches; headaches etc.)
- » Increased self-compassion
- » Decreased anger expression



**OBSERVE
THOUGHTS
FEELINGS &
SENSATIONS.**



IMPROVED SENSE OF CONTROL.

- » Decreased aggression
- » Decreased alcohol and substance abuse
- » Decreased disordered eating
- » Decreased worry
- » Decreased absent-mindedness
- » Decrease in distress (negative stress)
- » Decreased incidence of injury & increased pain tolerance
- » Reduced emotional reactivity
- » Decreased detrimental effects of perfectionism
- » Reduced burnout
- » Improved attention
- » Improved concentration & focus
- » Improved awareness
- » Improved sense of control
- » Improved stress management
- » Improved sleep
- » Improved processing speed – this is crucial in sports where decisions need to be made in a split second
- » Improved life satisfaction
- » Improved immune functioning
- » Interpersonal benefits – think of the coach-athlete relationship or teammates or even athlete-parent relationship
- » Improvement in working memory

MINDFULNESS EXERCISES FOR ATHLETES

A formal mindfulness programme for athletes presented by a sport psychologist is probably the best option as it will provide in-depth training, but it doesn't mean that athletes won't benefit from less comprehensive mindfulness practices too. The following section will provide the athlete / coach and consultant with some exercises which can be done to improve mindfulness.

When an introduction to mindfulness training is done to the athlete, it will be helpful to distinguish mindful awareness from general awareness. Mindfulness specifically entails a deliberate nonjudgmental (or compassionate) awareness of present-moment thoughts, feelings and sensations as they endlessly arise and fade away. In addition it means striving to remain open, curious and accepting of what is observed, whether pleasant, unpleasant or neutral instead of being tempted to automatically react with forms of active engagement such as suppression, avoidance and intellectualization. Words such as acceptance and openness might seem foreign to athletes as everything is about control in sport.

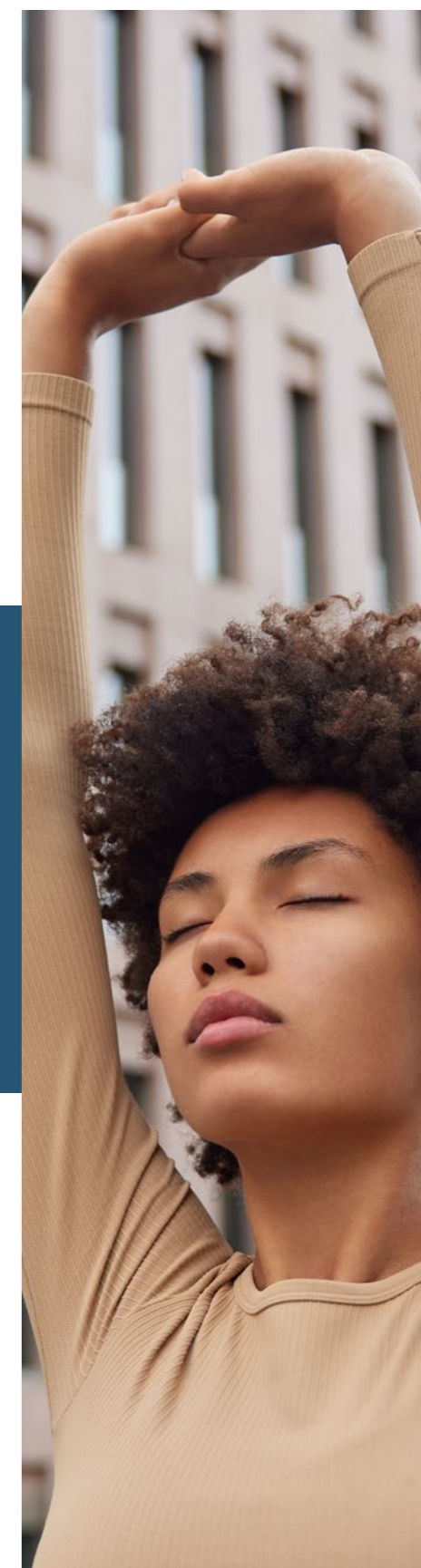
Mindfulness was once explained by Phil Jackson as:

“In basketball – as in life – true joy comes from being fully present in each and every moment, not just when things are going your way. Of course, it’s no accident that things are more likely to go your way when you stop worrying about whether you’re going to win or lose and focus your full attention on what’s happening right this moment.” 2019

In addition Jackson also commented that a critical skill for athletes and coaches is to be able to divorce themselves from what ‘just happened’ – i.e. a bad call, an issue with a teammate, the competition etc. – and to re-center again and again. It is important to explain to athletes that this ‘acceptance’ is not giving up or giving over, rather it is often a key step in making desirable changes. First accept, then change.

Cognitive Diffusion

In order for effective mindfulness to take place, it is important for the athlete to understand the concept of **cognitive diffusion**. Simply said, cognitive diffusion is where the athlete separates him/herself from his/her thoughts. It is a state in which the athlete observes or are aware of thoughts, reactions to thoughts (emotional responses, over-analysis, avoidance) and the consequences of those reactions.



JUST BREATHE

When the athlete is in a state of cognitive diffusion, the athlete recognizes and accepts that a thought:

- » May or may not be true
- » May or may not be important
- » Is not a threat
- » Is simply something to notice

Diffusion (meta-awareness) creates a gap between thoughts and reaction that can allow athletes and coaches to consider different and effective responses to their thoughts as opposed to trying to control the thought.

Let's take two practical examples:

1. The athlete holds up his hand, spreading out the fingers and placing the spread fingers right in front of his eyes (hands must touch his nose). The hand represents all the thoughts which take place during a competition. It represents a state of *cognitive fusion*. Now, the athlete moves his hand, while in the same position, outwards so that space is created between the eyes and the hand. This new expanded view offers a clearer perspective and highlights cognitive diffusion.
2. The next one athletes will love! I think coaches will love it more! The coach / sport psychologist narrates an athlete's internal dialogue while standing next to or behind him/her. The coach says out loud common negative self-talk while the athlete is trying to concentrate on practicing or completing a difficult technique. The athlete practices mindfully noticing the coach's dialogue and without engaging or suppressing, gently returns his/her awareness to the task (over and over) just as she would with his/her internal dialogue during practice or competition. This exercise offers another way to practice cognitive diffusion.

Mindful Breathing

After the athlete is familiar with what mindfulness is and the rationale for using it in sport, the sport psychologist / consultant / coach may choose to introduce mindful breath meditation.

To enhance the effectiveness of this step, tell athletes the following:

- » Have an observing stance of non-judgment
- » Accept all thoughts
- » Be curious about the thoughts – don't fear them
- » Mindfulness meditation is like going to the 'mental gym' to strengthen these skills for real-life application
- » Remind them that their attention will be invariably pulled in different directions during the session (thoughts about the past or future / commentary

about an exercise or competition / noises / sensations in the body).

- » Remind them that they might find themselves reacting with judgement, frustration or elaborate on new ideas and thoughts
- » Encourage the athlete to NOTICE these distractions with compassion, openness and curiosity, but then to gently return their attention to the present moment (i.e. attention focused on breathing)
- » The idea behind this is to: realize one's focus is not where it should be and then refocusing on the present – this will become a template for refocusing in practice and competition

Here are some simple steps to do mindful breathing:

- » The athlete needs to sit comfortably with legs uncrossed and arms at the sides or on his/her lap



JUST BREATHE.



- » Close eyes and begin bringing awareness to breathing
- » Notice how the chest and stomach rise and fall with each breath
- » Do not breath in a specific way, just notice the sensations of the natural flow of breath
- » Notice where the breath is felt – in the chest, nostrils, throat, mouth – feel the expanding and relaxing with each breath
- » If the athlete no longer notices the current breath, gently and compassionately return awareness to it
- » Take a few moments again to notice the breathing
- » Before finishing take a moment to notice any changes in their state since starting

Initially athletes might start with this breathing technique for a minute and then gradually build it up to 5 or 10 minutes. Once the athlete is comfortable doing it, they can integrate mindful breathing into sport practice and competition settings. This is where the athlete would go into a state of meditation a few minutes before the game, half-time or during changeovers. This is the ideal form of mindful meditation, whilst the pressure is on.

Mindful Body Scan

This is another fundamental exercise which can be done in short periods, such as breaks in competition. The aim is to help the athlete to recenter. Instead of focusing on breathing, now the athlete focuses on the sensations in the body. As with all mindfulness exercises, if other thoughts appear, notice them and return awareness to the body. The aim of the body scan is to bring awareness to body sensations and NOT to make any changes. Let's have a look at how a scan can be done:

- » Sit or lie comfortably with arms and legs in an uncrossed position
- » The athlete can close their eyes if they want
- » The athlete starts to check in with their body as it is right now – notice any sensations
- » Start with the feet. Be aware of sensations in the feet without judgment – just experience the moment. Notice the feelings and sensations such as temperature, muscle tension, touch as well as pressure. Do not attempt to label these feelings and sensations as either 'good' or 'bad' and do not try to change them – just notice them and be aware of them
- » Now move on to the next body segment, i.e. the legs – be compassionately aware of the feelings and sensations – i.e. if you feel stiffness in your calf, just be aware of it, do not start to stretch it out
- » Continue in this manner until you end with your head

- » Be aware of the entire body, notice any changes in the state since the beginning of the scan
 - » If the athlete is ready, they can open their eyes again
- To make a body scan more sport-related, this type of mindfulness training can be incorporated into sport routines such as stretching or warm up. The athlete might introduce mindful stretching. Here are some tips on how to do it:
- » Slowly bend at the hips and lean forward with the arms hanging downwards towards the floor / court / grass
 - » Feel the stretch in the lower back and legs
 - » Notice the sensations as the stretch takes place. Just be aware of the sensation without judging it – just experience the moment. Simply notice the feelings and sensations
 - » Move on to another segment of the body

This is just one example of how mindful stretching can be done. However, athletes are encouraged to approach any and all stretching with mindful focus. As athletes become skillful in incorporating mindfulness training with a physical exercise (i.e. stretching), they can add mindful focus to jogging warm ups or sport skill warm ups. These exercises encourage being fully present during what often are routine, mindless activities (something you just do without thinking).

Technology

Some athletes might want to record their sport psychologist's mindful meditation prompts on their phone and then go through an exercise while listening to the recording. In addition a mindfulness app can be used. Some wonderful apps are available now, i.e. Headspace, Calm or Smiling Mind These apps provide guided meditation practice, individualized prompts and also reminds the athlete to practice. Note that some of the apps require in-app purchases. However, the Smiling Mind App has a specific sport protocol which has been developed in collaboration with Cricket Australia and is free of charge.

After completing any mindfulness exercise it is important to:

- » Process the athlete's experiences – including any pleasant or unpleasant experiences

- » Explore how the skill might apply in the athlete's performance preparation – i.e. mindful warm ups focusing on stretching sensations
- » Explore how the skill might apply in performance situations – i.e. the ball can replace the breath as the object of attention
- » Explore how the skill might apply in life – whilst having a difficult conversation, use mindful breathing
- » Revisit fundamentals and note it takes consistent practice (i.e. 5-10 minutes of mindfulness meditation per day) to build habit strength, just like developing physical skills.
- » Remind athletes that distraction does not represent failure or not 'being good' at mindfulness. It is not uncommon for athletes who are perfectionistic or self-critical to struggle with the idea that becoming distracted during a mindful exercise is normal

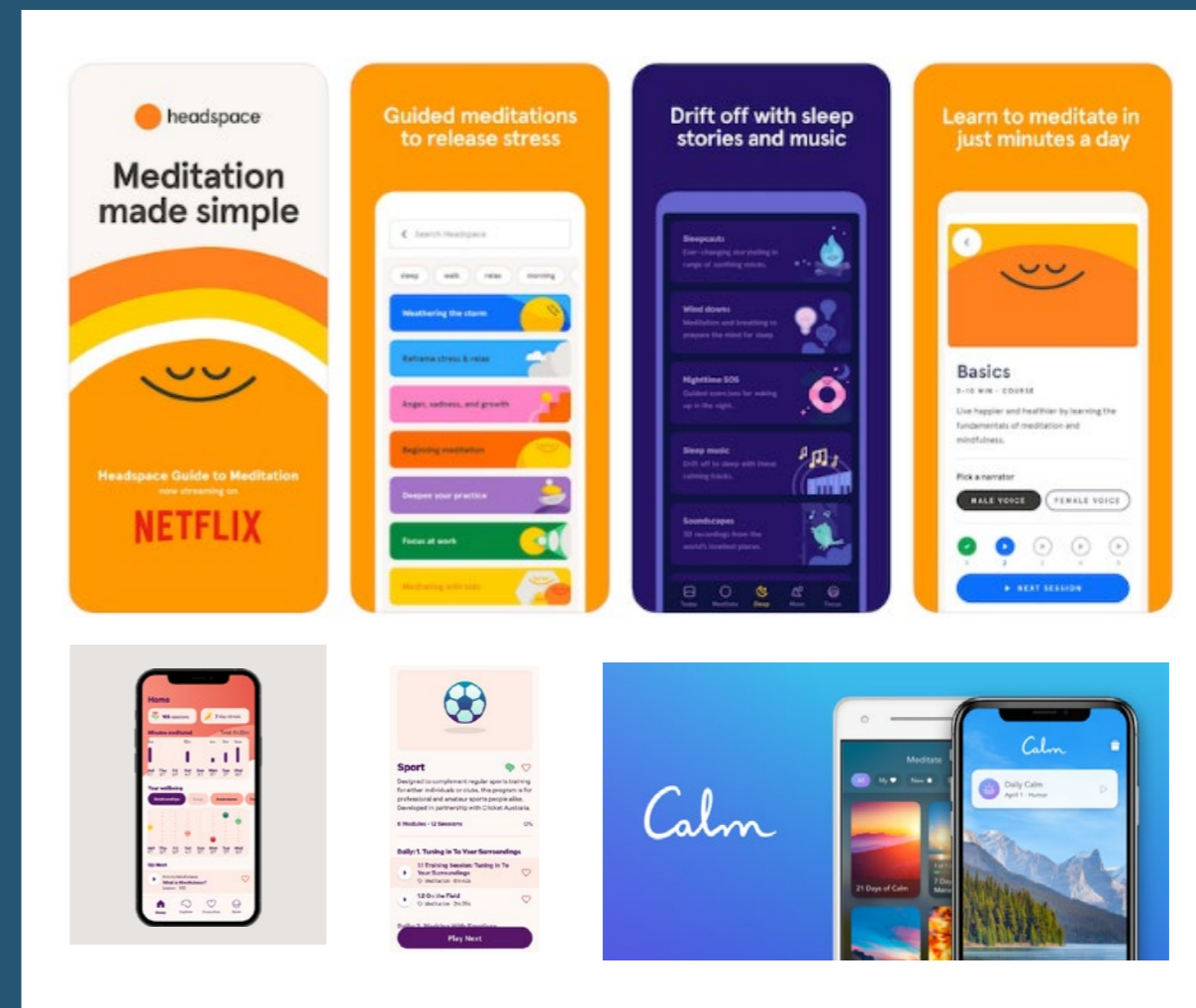


Figure 1: Meditation apps that athletes can use (FLTR: HEADSPACE, CALM, SMILING MIND)



DISTRACTIONS DURING MINDFULNESS MEDITATION – HOW SHOULD THE ATHLETE THINK ABOUT IT

Let's take a metaphor for example: Link mindfulness to a bicep curl. When an athlete is lifting a dumbbell during the concentric phase, the bicep muscles fire. Similarly, when an athlete is mindfully noticing breathing, associated neural pathways in the brain innervate. When the athlete lowers the dumbbell during the eccentric phase, bicep fiber contraction decreases. Likewise when an athlete's attention inevitably wanders from the current breath, activity in the associated neural pathways decreases. When the athlete then notices his attention wandering and compassionately returns it to the current breath, it is like beginning the next bicep curl again. It is all part of the exercise. The repetitions strengthen the skills and pathways, so it is not a failure to lose mindful awareness.

Athletes also use another way of coping with distractions. They name the distraction as they notice it – these might be noises (ice cream bell in background) or thoughts (I still have to do math homework) and return focus to the breath or body. **IT IS THE RECOVERY OF MINDFUL AWARENESS OVER AND OVER AND OVER AGAIN THAT IS REALLY THE GOAL OF THE PRACTICE. JUST LIKE SPORTS. REPETITION.**

The 3-Second Rule

Once athletes become at ease with mindful breathing and the body scan, they can delve deeper to broader mindfulness meditation. However, athletes need something quick which will work in competitions – one such example is the 3-Second Rule exercise which can be used before or even during practice and competition. Athletes quickly assess the focal areas of the mind, body and heart rate + breath. Let's see how it works:

- » Take 3 seconds to mindfully notice your mind – what thoughts, feelings and emotions are present
- » Take 3 seconds to mindfully notice your body – scan your whole body, observing what feels normal, different, loose, tight, hurt or any other sensations
- » Take 3 seconds to mindfully notice your heart rate and breath – become aware of the connection between your heart rate and breathing

This very quick (less than 10s) mindful awareness can provide information to adjust for effective and efficient sport performance. Notice that this quick exercise will be most beneficial once the athlete is proficient in mindfulness training.

Word of caution

When teaching mindfulness to an athlete, coaches / consultants should be aware of common myths about it and that there is a chance that it can interfere with learning. Mindfulness does not induce relaxation, improve productive thinking or clear an individual's mind of thoughts. Focusing on these aims can be counterproductive to mindfulness practices. Remember the goals of mindfulness are:

- » Be non-judgmental and compassionate, open, fundamentally accepting and inquisitive in the observation of the given focus
- » To identify when the athlete's attention has drifted
- » Gently return the attention to the original focus without actively suppressing these distractions

Sport psychology consultants or coaches may reinforce these ideas by linking meditation exercises with sport performance. For example:

- » Mindful breathing / mindful focus can be replaced by the present-moment, task-relevant stimulus like a ball, practice swing, coaching instructions, a competitor
- » When attention drifts to task-irrelevant stimuli like distracting thoughts, crowd noises, anxiety symptoms in body – the athletes should gently and kindly return to task-relevant cue
- » The coach can look into how mindfulness can increase tolerance – this will be especially useful if mindfulness can be used for pre-competitive anxiety until it passes, reducing reliance on unhelpful coping, such as overtraining, overthinking, overeating comfort foods, not adhering to pre-competitive routines etc.

Like with all other psychological skills, there is some risks involved with mindfulness. The NIHNC for Complementary and Integrated Health issued a statement that meditation is generally safe for healthy people, but cited rare reports of causing or worsening anxiety and depression. In the sporting arena it might be that athletes who have used avoidance strategies to cope with unpleasant thoughts, feelings and body sensations may at first notice increases in these experiences. While initial increases occasionally occur, they should rather be guided by a professional on which steps to take.

PRACTICAL RECOMMENDATIONS FOR INTEGRATING MINDFULNESS PRACTICE INTO YOUR TRAINING

- » **Search local** – search in your area for studios, sport psychologists, consultants, health clubs for group meditation classes and gather a few fellow athletes / teammates as accountability partners. Group interaction and support increases the athlete's motivation to stick with the programme. Coaches can implement these programmes during training sessions so that all the athletes are involved and automatically become each other's accountability partners.
- » **In for the duration** – the athlete must understand that change does not happen overnight and meditation is not something which is done the night before the game or a few minutes before a competition and now the athlete expects miracles. Commit to an extended amount of time to fully integrate mindfulness practice. 8 – 12 weeks are needed for change to be seen. However, after 12 weeks most athletes will want to continue on their own as they see the benefits.
- » **Keep a record** – athletes should make notes about the experience so that changes can be documented. The athlete should write about how they have recognized benefits in areas such as anxiety, pessimism, self-efficacy, training and flow experiences.
- » **Daily practice** – although there are multitude of programmes, most of them recommend that mindfulness training must be done on a daily basis. Hence it is recommended to select a time of the day when you know you will be calm and have time to focus on meditation – this might be at night for some, or even early morning for others. Coaches can end off their sessions with this exercise as well.
- » **Race / Competition Day** – athletes should arrive at the venue about 15-30 minutes in advance so that they have 10 minutes to go through their mindfulness routine with the end goal to put their skills into practice (perform what you practiced)
- » **Online tools** – athletes are encouraged to find online tools to support individual progress. There are a multitude of mindfulness videos on YouTube that will assist you when you are alone
- » **Apps** – athletes can search on their app stores for mindfulness / meditation apps for sport. There are a couple geared specifically towards athletes, i.e. Smiling Mind
- » **Meditation Type** – Select a meditation type that supports your sport – there are 2 types of meditation – FAM based – Focused Attention Meditation – this is suitable for sports which are predictable, sequential like running, golf, swimming etc. The other type is OMM based – Open Monitoring Meditation – this is used where the athlete would need to monitor the internal and external output and still remain nonreactive – sports such as football, tennis, badminton, squash (mostly all reaction based sports, not pre-determined sports).

CONCLUSION

It is unlikely that a single intervention or approach will help all athletes and it can be quite difficult to predict whether an athlete will respond positively towards a specific intervention. It is for this reason that professional sport psychologists should assist athletes with these types of interventions. They will be able to quickly pick up on cues and make use of other interventions which could benefit the athlete even further. However, for many athletes, that don't have the means to use a sport psychologist, reading up on certain interventions and seeing if they are able to implement some of the exercises can be beneficial, especially if there is technology to assist them.

Mindfulness-based approaches is an alternative to traditional PST and there is considerable support for their effectiveness for improving general well-being as well as various clinical conditions. It is suggested that mindfulness practice has transformative potential. It may cultivate a variety of well-being benefits, including a compassionate outlook such that sports participation might become means for discovery, growth, connection and healing.



PRACTICE MINDFULNESS.



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