PERFORMANCE ANXIETY IN SPORT

FREE STATE
ACADEMY OF SPORT

Everything negative - **pressure**, challenges - are **all** an **opportunity** for me to **RISE.**

- Kobe Bryant

MENTAL HEALTH OF ATHLETES

– HOW PERFORMANCE ANXIETY IS KILLING THE ATHLETE – *MUST-KNOW INFORMATION FOR COACHES*

INTRODUCTION

Professional sporting success is based on 4 pillars of performance. The first pillar is obvious, i.e. **skills** - the ability to perform the sport to the best of the athlete's ability. The second pillar is the use of **sport science / sport medicine** – i.e. **performance testing**, **conditioning**, **sport nutrition**, **rehabilitation**, **physiotherapy**. Most athletes realize that this pillar is essential for success in sport. The **third pillar is tactics** and the **fourth pillar is mental performance**. The 4th pillar is often the pillar which is neglected or shifted onto the shoulders of either the athlete or if funds are available the mental coach / sport psychologist. However, coaches are actually in a better position to speak to their athletes about handling performance anxiety than any other person as there is already a ***strong bond between the athlete and coach***. This does not discredit the position of a sport psychologist as they are trained to assist athletes with in-depth situations and solutions. But coaches should not shy away from this pillar of performance. The problem here is – coaches are not trained to give basic mental performance advice. **The more informed the coach is, the better advice the coach can provide to the athlete, especially when situations present themselves where the sport psychologist cannot be present**, i.e. tournaments / competitions.

If a coach picks up an athlete experiences anxiety prior to a match or competition, the coach is often placed in a situation where cliched advice is at the order of the day. **"Just try to relax / You can do this / Just breathe through it / We all experience it / Just cope with it / Never show your weakness / Stop complaining"**. Sound familiar? Why do you think this is? It is because coaches are not trained in this field of expertise. Should the coach then be a sport psychologist as well? Not at all. But basic information regarding performance anxiety in particular, is definitely a pre-requisite. A big chunk of a coach's education should be spent on mental training so that sound advice can be provided to athletes. Athletes don't need cliched advice or a story about how you as the coach also experienced anxiety. **They need solid, doable advice in the moment which will get them through the sticky situations**. Let's be honest. How many coaches are able to get an athlete out of these frantic situations and within a couple of minutes perform optimally? It is rare. It is usually those that understand the science of mental conditioning. Those that see that nice phrases will not get the job done. But those that understand that **the brain is just like a muscle that must be trained on daily basis** and not only the day before a competition. The best coaches make mental training automatically part of the athlete's weekly training. However, the most clever coaches will make sure that the advice which is given by the mental performance coach / sport psychologist is in line with his/her coaching philosophy so that the athlete is developed as a complete athlete.

In the past couple of months following many professional tournaments, competitions and even the Olympic Games, athlete mental health has come to the forefront and a multitude of athletes speaking openly about it in the media. Some examples include Naomi Osaka (tennis), Sloane Stephens (tennis), Simone Biles (gymnastics), Michael Phelps (swimming 2012), Sha'Carri Richardson (sprinter), Tom Dumoulin (cycling), Liz Cambage (WNBA) etc. The IOC did a survey during the recent Olympics and it was found that amongst 4000 athletes, **every 1 of 3 athletes** either experience **anxiety** or **depression**, with **69% being female** and **31% being male athletes**. This is a massive problem that needs attention. Serious attention. Professional attention, but also daily attention.

Let's kick this off right. Let's define sport psychology:

"It is the study of people and their behaviours in sport." For both the athlete and the coach this is as important as physical training and performance analysis. Success is being attributed to motivation, focus and being in the zone, as well as team cohesion.

MENTAL HEALTH = ATHLETE HEALTH

After an anxiety attack minutes before the 4th round in the 2012 US Tennis Open against Roger Federer, American Player Mardy Fish opened up about his mental health and what many professional athletes are going through. Athletes are trained never to show weakness and never to show fear. That is how coaches teach little kids that are developing in a sport. *"Body language is so important. Put your emotions away."* Instead of dealing with emotions and getting coping mechanisms starting from the start of their sporting career. Mardy Fish continues to say that it is important to stop regarding mental health as separate from physical health. "It is just health. They call it mental health, but your brain is part of your body. It's an injury. You just can't see it."

It is important to be clear about this topic. For an athlete to talk about his/her mental health should not classify them as a 'softie' / weak. It has nothing to do with this. Many athletes experience a multitude of physical signs of a panic attack, like a racing heartbeat, excessive adrenaline rushes, forms of arrythmia, excessive sweating, dry mouth etc. Often times, these physical signs are treated medically, but the source is never found. It is mainly due to the disconnection between the athlete and the doctor. The doctor is not on the field / court with the athlete. But the coach is. The coach is able to make this connection and be a great communicator to diagnose the real problem at hand. Mental health is not about being physically tough. You can take the toughest person in the world and they will still experience signs of anxiety or that endeavour to be perfect...in their own eyes and often times in the eyes of the coach and regretfully of the fans when competing at a much higher level. Athletes sacrifice anything for the win. They often place themselves in such a situation where they are physically not able to cope any longer, but the dream to be number one never dies. This is unnecessary. It is all about the balance between the pillars of sporting excellence. If one pillar is dropping, the entire building will fall to ashes. One pillar is not more important than the other, but is of equal importance.

"Athletes who talk about their own use of mental health resources or their own struggles with mental health symptoms or disorders really do a wonderful service to sport in general in terms of demystifying and normalizing the experience. To have mental health symptoms is not incompatible with high-level sports, it is actually a sign of strength to reach out for help" ***Claudia Reardon USTA mental health consultant.***

All professional athletes are faced with situations where younger athletes are looking up to them, often mimicking their every action so that they can also share in the 'road to success'. If professional athletes are talking about their mental health issues, the importance of mental health will down spiral to amateur level, junior level and developmental phases. Professional athletes should in actual fact be a role model for a mentally happy athlete. Often times, in the media professional athletes are portrayed as 'having it together'. This is so far from the truth. They are still human and still have doubts, fears and anxiety every day. They are just making it part of their public image. However, it looks as if this misconception is turning in the right direction. It will provide younger athletes with a lot hope as they are always comparing themselves with the top athletes / players, i.e. "If Simone is able to do it, I should also be able to do it". This is not true.

In 2019 the IOC published an article where they classified the most prominent mental health issues **ELITE athletes** are struggling with. These include:

- Sleep disorders and sleep concerns
- Major depressive disorder and depression symptoms
- Suicide
- Anxiety and related disorders
- Post-traumatic stress disorder (PTSD) and other trauma disorders
- Eating disorders
- Attention-deficit / hyperactivity disorder
- Bipolar or psychotic disorders
- Sport-related concussions
- Substance use and substance use disorders (often times pain medication)
- Gambling disorder & other behavioural addictions

This opens one's eyes. Elite athletes are struggling with the same mental health issues as non-athletes. And that is exactly the point. Athletes should not be put on a pedestal when it comes to having the complete package. They struggle with everyday hassles as well. They struggle with mental health issues as well.

Now that we know that mental health is critical to the performance of an athlete and the open conversation which is currently trending, let's kick off with a look at some of the facts regarding **stress, anxiety and arousal** so that you as the coach understand what the athlete is going through and is able to make a meaningful impact and not continue with cliched phrases.

STRESS, ANXIETY & AROUSAL

STRESS

Oftentimes stress and anxiety is used interchangeably. It is important to understand that there is a difference between these terms. **Stress is a <u>stimulus</u> resulting in a positive or negative response to a specific situation**, i.e. a match / competing in front of a large crowd etc. Stress produces both physiological and psychological symptoms. Stress can be classified into 2 categories:

Figure 1 – Types of stress

The **effects of stress** on sport performance depends on:

» The **athlete's ability** (i.e. beginner vs intermediate vs professional)

» The **level of competition** (i.e. school competition / match vs a provincial or national competition)

» The **athlete's personality** (i.e. perfectionists experience stress more intensely)

If the athlete perceives the demand (match) as a challenge (eustress) or as a threat (distress), the result will either be an increase in motivation and performance (eustress) or an increase in worry and a reduction in performance (distress). Athletes respond differently to the same situation. It might be due to the following causes of stress:

» **Internal stress causes** – this might be illness, injuries, sleep, perfectionist personality – basically anything INSIDE the athlete which might cause stress

» **External stress causes** – this might be the environment (i.e. venue of the match), other people (i.e. opponents, parents, coaches etc.) – basically anything OUTSIDE the athlete which might cause stress

ANXIETY

Anxiety is the negative EMOTIONAL STATE which is associated with stress; **feelings of worry, nervousness, discomfort or uneasiness**. Anxiety is a common emotional state experienced by athletes at all levels of performance. Because anxiety is a result of a distress, the causes of anxiety is the same as the causes of stress. This might be why the terms stress and anxiety is often used interchangeably. But, did you know that there are actually 2 types of anxiety?

1. **Trait Anxiety** – This refers to the personality of the athlete, the athlete's **inherent nervousness**, their consistent worry or behaviour regardless of the situation. It is a chronic condition. It has an effect on the athlete's view on possible scenarios which can happen in a game or race. This usually leads to a greater body response than that which is needed (over reacting to the situation). This often leads to impaired performance. This is the type of anxiety that Mardy Fish was diagnosed with at a very late stage in his career.

2. **State Anxiety** – This is a type of anxiety which changes as the situation changes. It is a temporary mood state and it comprises of two types:

- **Cognitive State Anxiety** – This is the **MENTAL MANIFESTATION** of anxiety – it is the negative thoughts, worry, inattention OR nervousness or apprehension about a specific game / competition
- **Somatic State Anxiety** – This is the **PHYSIOLOGICAL MANIFESTATION** of anxiety, i.e. increased heart rate, sweating, fidgeting, biting finger nails.

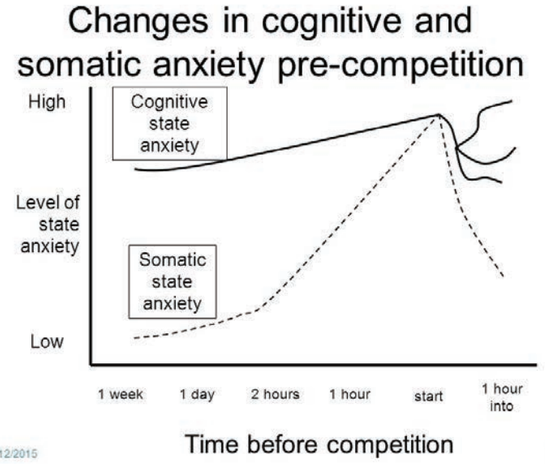


Figure 2 – Cognitive vs State Anxiety as a competition approaches

Let me explain it these types through a practical example:

A squash player experiences worry and negative thoughts in the days before his match. This is called **state anxiety** as it is linked to a specific situation. The **amount of the worry** and negative thoughts / nervousness are to such an extent that he is extremely nervous – this is called **cognitive state anxiety** – it causes his decision making to become poor and concentration levels to drop, hence increasing the number of errors. The **somatic state anxiety** (physical) is low a week before competition, but as the game approaches, these physical signs start to manifest - an increase in **heart rate, sweating and blood pressure**. Some of these symptoms of anxiety are beneficial to sporting performance, but it is all about perception. If the athlete perceives that the symptoms are happening because they are unable to handle the situation, the cognitive state anxiety will increase even further.

EXAMPLE

Performance anxiety is a vicious cycle. A high level of anxiety leads to enhanced tension which causes the skill of the athlete to be disrupted. If the anxiety is not contained, the number of errors increases. This leads to the athlete being distracted and causes negative internal thought patterns. In essence the athlete commits even more errors and might lead to an outburst. The goal would be to stop high levels of anxiety in its tracks.

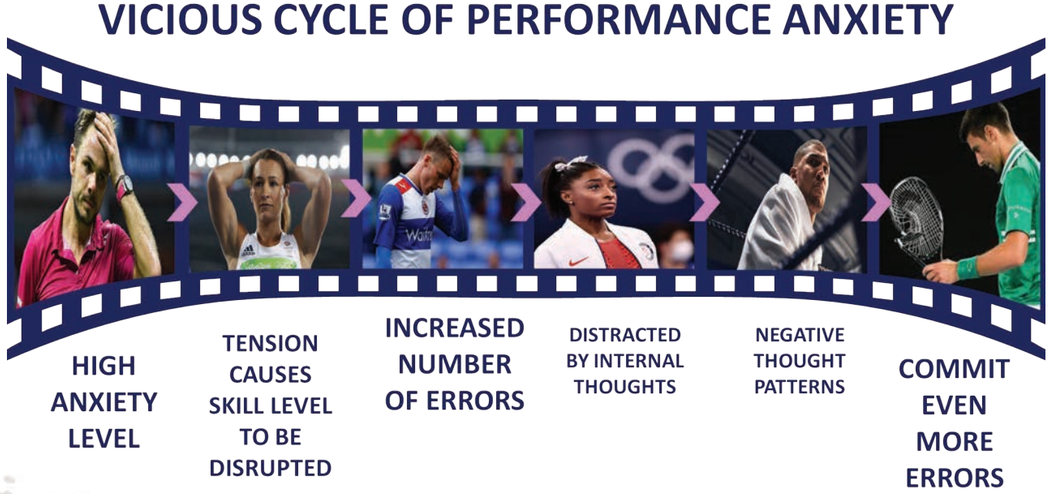


Figure 3 – The vicious cycle of performance anxiety

AROUSAL

Arousal is referred to as a psychological state of alertness and anticipation that prepares the body for action. Optimal arousal is required for athletes to perform optimally. Arousal is not the same as anxiety as it is a physiological response similar to getting excited before an event. **The goal of arousal is to get ready for action and it often causes an increase in heart rate and blood pressure as well as the nervous system waking up**. Athletes refer to it as **'psyched up'**. It is about waking your body up so that it is ready to perform the specific sport action. Arousal can be both positive and negative for performance, depending on the level of competition as well as the sporting code.

For example, in **high intensity contact sports like rugby**, a **higher optimal arousal level** is needed compared to low intensity non-contact sports such as gymnastics. The rugby player will not perform optimally if his arousal is not high enough or even if it is too high. The gymnast is facing a similar situation – if her arousal levels are too high or too low she will not perform optimally. You are getting the idea. **This refers to an optimal arousal level for every athlete in every sporting code – this is often referred to as 'being in the zone'.**

When it comes to explaining the optimal arousal zone, there are 4 theories which holds water:

1. Drive Theory
2. Inverted U Hypothesis
3. Catastrophe Theory
4. Zone of Optimal Functioning (ZOF) Theory

The **drive theory** is a linear relationship between arousal and performance. As arousal increases, so does performance. The drive theory does not make provision for a reduction in performance due to **over arousal**. Thus this theory is only relevant up to a point.

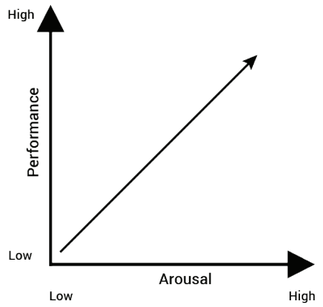


Figure 4 – Drive Theory

The **inverted U hypothesis** states that there is an optimal level of arousal which differs between sport codes and athletes. **Performance levels will be at their highest at the optimal point of arousal**. If arousal is too low or too high performance will be lower.

Figure 5 - Inverted U hypothesis

The **catastrophe theory** differs from the inverted U hypothesis by **linking arousal and anxiety**. **If the athlete is experiencing high levels of cognitive state anxiety as arousal rises towards the athlete threshold, the athlete experiences a sudden and significant drop in performance.** This theory does also rely on the need for both arousal AS WELL AS cognitive state anxiety to achieve optimal performance.

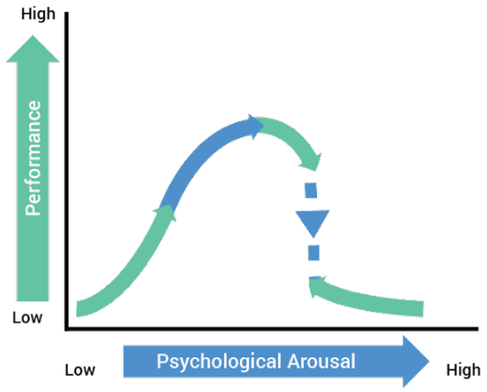


Figure 6 – The catastrophe theory

The **zone of optimal functioning (ZOF)** looks at the **relationship of stress, anxiety and arousal**. They all impact upon motivation and the improvement of performance up to a point. However optimal performance has many other variables that impact upon arousal and the individual:

1. **Personality** – Extroverts perform well when aroused where introverts perform best at low levels of arousal
2. **Task** – Simple tasks are performed better in high arousal levels, where complex or fine tasks are performed better in low arousal levels
3. **Stage of learning** – Autonomous stage perform better in high arousal levels where cognitive and associate stages perform better in low arousal levels

Below are two examples of how personality, task type and the stage of learning all interact:

	PERSONALITY	TAKS TYPE	STAGES OF LEARNING
Athlete A Low Zone of Functioning (Low Arousal)	Introvert	Complex / Fine skills – i.e. Spin Bowling in Cricket	Cognitive / Associative phase
Athlete C High Zone of Functioning (High Arousal)	Extrovert	Simple / Gross Skills – i.e. Shotput	Autonomous

Table 1 – Examples of how Zones interact with personality, task and stage of learning

Unlike the inverted U hypothesis, ZOF states that athletes will perform optimally at different arousal levels (which depends on the factors above) and therefore not all athletes' optimal performance is at the top of the inverted U.

The feeling of playing or competing in the zone can be described as:

1. Feeling in control
2. Effortless
3. Enjoying it & feeling satisfied
4. Having great attention and concentration

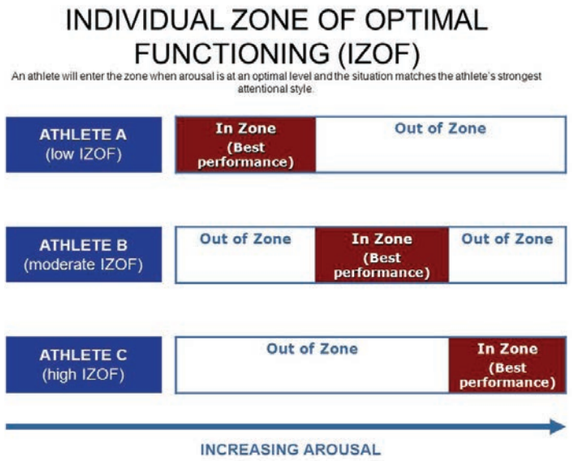


Figure 7 – Zone of Optimal Functioning

THE EFFECTS OF AROUSAL ON SPORT PERFORMANCE

If the athlete perceives arousal levels as positive, it will have a positive impact on performance, i.e. playing or participating in the zone. However, the other side of the coin is also true – if arousal is perceived as negative it will increase both somatic as well cognitive state anxiety. The result is the following: Choking – it occurs in high pressure situations where this heightened state cause extreme nervousness and a performance catastrophe.

THE EFFECTS OF ANXIETY ON SPORT PERFORMANCE

Anxiety affects the overall performance through the following ways:

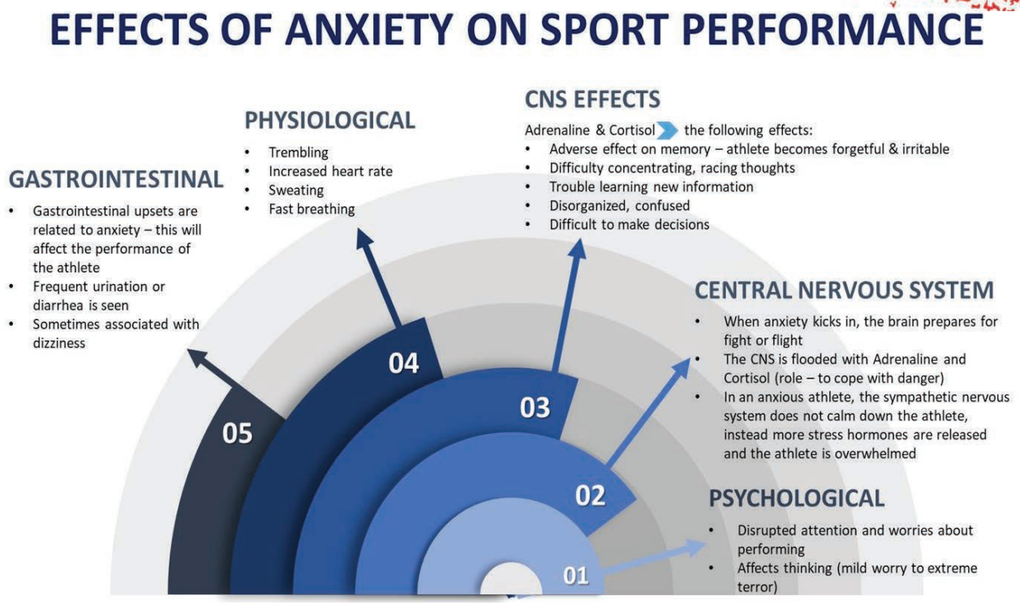


Figure 8 – Effects of anxiety on sport performance

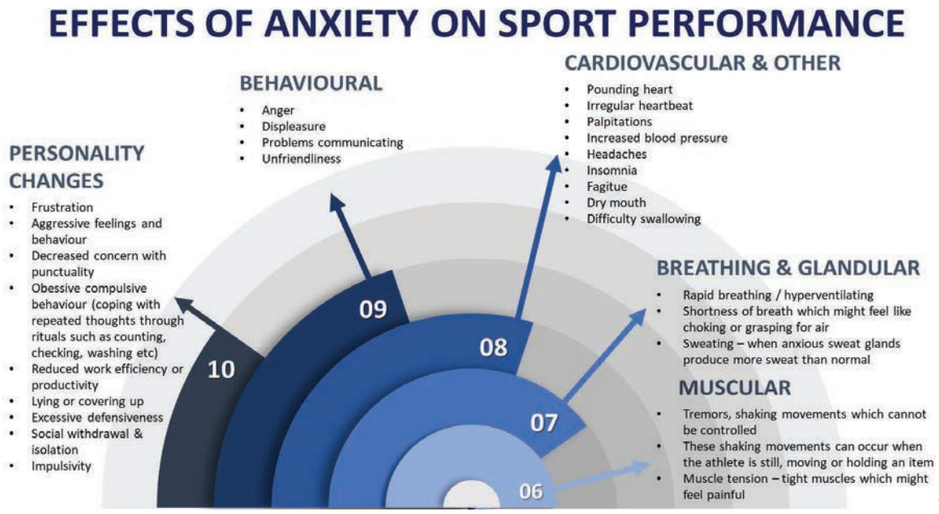


Figure 9 – Effects of anxiety on sport performance

TREATMENT OF PERFORMANCE ANXIETY

Anxiety disorders are real disorders that require treatment. Treatment is not just a matter of positive thinking, will and self-discipline. It is essential for the coach and the athlete to truly understand that talking about mental health is no longer a taboo topic. It is part of sport performance and should earn its respectful part of the package, just like recovery strategies or performance nutrition.

Usually, the coach will be the first professional person to pick up on the athlete's performance anxiety. The coach thus needs to know the signs, symptoms and effects it can have on performing optimally. Once detected, the athlete's severity needs to be assessed so that a decision can be made whether a sport psychologist should step in and take control of the situation. It all depends on the level of the athlete and the participation level. For example, if it is a primary school development athlete, the sound, concrete advice of the coach would suffice, unless general anxiety disorder has been picked up – in that case the help of a counsellor / psychologist is needed. Once the athlete matures in performance and the pressures start to add up, the role of the sport psychologist becomes more and more important. It is for these reasons that mental health should be seen as critical. Novak Djokovic, world number one tennis player once mentioned that at the top of the game, 99% of all tennis players have the same skills, the same fitness, have the same nutritional plan, but what gives the athlete the edge is their mental health / ability to cope with immense pressure to perform optimally.

There are a couple of myths about the nature of sport psychology:

» Sport psychology is only for **weak athletes or athletes with problems**

» Sport psychology only involves **psychotherapy**

» Sport psychology is a last resort when **nothing else works**

» Sport psychology is a **quick fix** prior to championships or when athletes are in trouble

» Sport psychology makes athletes **think too much**

» Sport psychology changes the **athlete's personality**

There are general treatment options for performance anxiety and they can *broadly* be classified into 3 categories:

1. Medication
    - Medicines used to reduce symptoms of anxiety disorders include antidepressants and anxiety-reducing medications. These cannot be bought over the counter and should be prescribed by a doctor / psychologist / psychiatrist
2. Psychotherapy
    - This is a type of counseling which addresses the emotional response to mental illness. It is a process in which trained mental health professionals help athletes by talking through strategies for understanding and dealing with their anxiety
3. Cognitive-behavioural therapy
    - Anxious athletes often participate in this type of therapy in which the athlete learns to recognize and change thought patterns and behaviours that lead to nervousness / troublesome feelings

However, there are some processes that athletes can partake in to treat performance anxiety. The following are some ideas:

1. **Diaphragmatic Breathing** – the diaphragm is a muscle between the chest and the stomach cavity. This type of breathing is done by contracting this muscle. It can be repeated several times daily.

How to do it?

Sit upright in a chair or lie on your back with knees bent / feet pushed against a wall. Close your eyes and focus on your breath, ensuring your shoulders draw away from your ears. Place one hand below your bellybutton and the other hand on your chest. Breathe in deeply through your nose and allow your belly to rise like a balloon being filled. Notice the bottom hand rising and falling with your breath and exhale, slowly allowing your belly to deflate. Repeat for 5-10 minutes. The more you practice it, the more natural it will become.

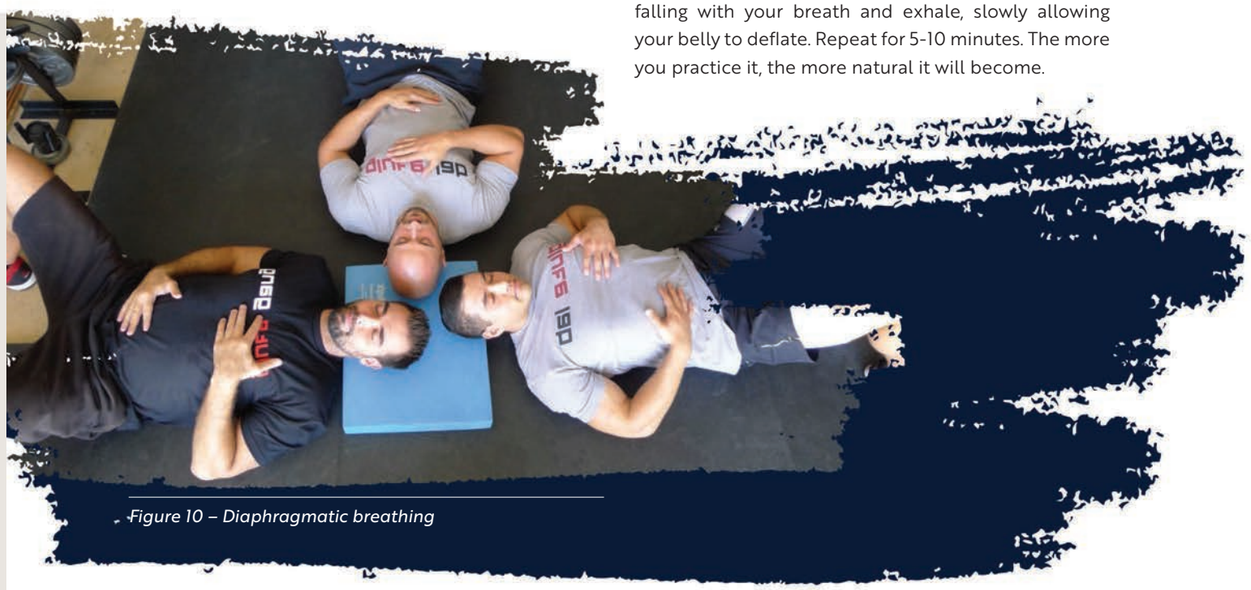


Figure 10 – Diaphragmatic breathing

2. **Relaxation Techniques** – when feelings of anxiety such as an increase in heart rate, blood pressure or difficulty breathing are seen, a relaxation technique can help in controlling the anxiety. For example – the athlete is asked to lie down in a dark room and think about relaxing his body from the outside inward. This will cause blood pressure, breathing and heart rate to normalize. If an anxiety attack is more severe, then massaging the body can relax the athlete.

Figure 11 – Relaxation techniques

Figure 12 – Visualization Techniques used by athletes

3. **Visualization** – it is a technique used by athletes to control their anxiety. The athlete would visualize himself/herself in situation similar to the actual event. The athlete visualizes himself/herself winning in front of the entire crowd where the event is taking place. There are two ways to do this:

    - **Visualization Yourself** – This type is great for tough games where fatigue has set in or if the athlete is playing with an injury. The athlete is asked to visualize every physical aspect of their body with their eyes closed. While doing this, the athlete tells himself/herself that he/she has enough energy and that each body part is functioning 100%

    - **Visualization Game** – With this type of visualization the athlete visualizes the actual sport they are about to play. The athlete visualizes the events starting from the preparation before going onto the field / court, how the athlete partakes and finally the victory

    - **Visualization Opponents** – With this type of visualization the athlete visualizes himself/herself and the game. The athlete is required to imagine how the opponent is playing / competing. While visualizing the opponent's moves, the athlete tells himself/herself that his/her moves are better than his/her opponent's. The athlete would also visualize how to combat the opponent's moves.

TRY THESE TECHNIQUES

4. **Progressive Muscle Relaxation** – anxiety results in stiffness of muscles. Muscle relaxation is done to avoid this happening during the actual game / competition.

How to do it?

» Athlete tenses a particular muscle of the leg, abs hands or face for 10 seconds with eyes closed

» After 10 seconds of tension, 20 seconds of relaxation should be practiced before moving to the next muscle

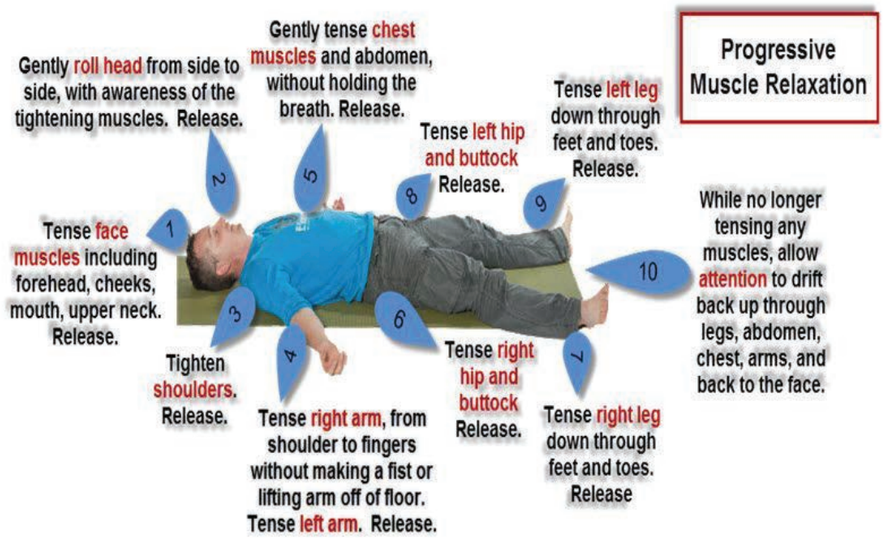


Figure 13 – Progressive muscle relaxation technique

5. **Mindfulness Meditation** – Mindfulness is a state of awareness. Maintaining a moment-by-moment awareness of thoughts, body sensations and the surrounding environment. It involves acceptance, paying attention to thoughts and feelings without judging them – i.e. without believing that there is a right or a wrong way to think or feel in that specific moment. Just accepting the situation.

Figure 15 – Victoria Azarenka (tennis player) doing mindfulness meditation during changeovers (between 30-45 seconds).

MINDFULNESS MEDITATION GUIDELINES

There's no way to quiet your mind. Quieting your mind is not the goal. The goal is to be aware of your mind.

Your mind will wander. When practicing mindfulness meditation, it's normal for your mind to wander and think about something that happened to you yesterday or your to-do list, for example.

As your mind wanders, simply bring it back to the present moment. This is the great advantage of mindfulness meditation - learning to recognize when your mind has wandered to the past or future so that you can bring it back to the present moment.

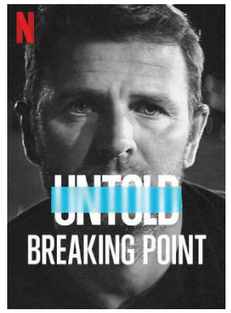
Don't judge yourself for your wandering mind. When you judge yourself, your mind is in the past. Instead of judging or criticizing yourself for letting your mind wander, simply bring your mind back to your breath and your body in the present moment.

Use your breath as an anchor to the present moment. Take deep breaths from your belly as you complete meditation mindfulness exercises. Even during body scans or muscle relaxation exercises, deep breathing is essential to connect your body and mind to the present moment.

Figure 14 – Guidelines for mindfulness meditation

CONCLUSION

Now that you as the coach has learnt a bit more about stress, anxiety, arousal; the signs and symptoms of performance anxiety and some treatment plans and techniques to handle anxiety during competition, it is your responsibility to assist your athletes. Remember, a sport psychologist will always be your number one treatment option, but often times it is a mere luxury for some athletes. Enhancing your knowledge of how the athlete's brain functions during competition, knowing that the athlete's feelings and thoughts can hamper or enhance their performance and providing them with solid advice during difficult situations can now become part of your coaching philosophy.



Knowledge is key, but outdated knowledge will get you nowhere. This is seen in the latest Netflix documentary of Mardy Fish – **Untold: Breaking Point**, where old sport psychological advice from the 90s stuck in his head and actually hampered his performance 15-20 years later. Athletes were told to be tough, to suck it up, to never show weakness. Those simple words carry on through generations. Often times, you as coach will find yourself uttering these same phrases as it was the way you were coached. Let's change it. Let's change the way athletes think about mental toughness / health. Let's make them comfortable in opening up about their insecurities and let's give them hope for the future.

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