Breathing to Manage Anxiety in Tennis.

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**ABSTRACT**
This article describes how although anxiety leads to muscular tension which in turn inhibits tennis performance, learning to breathe correctly can control the physiological effects of somatic over-arousal. The difference between shallow and deep breathing is explained, and clear and specific advice is given on how to breathe deeply from the stomach.

**CASE STUDY**
John stands just behind the baseline, waiting to receive serve. He is 5-3 down. He can almost hear his heart beating; he is still trying to catch his breath from the previous point. His shoulders feel stiff; his grip on the racquet feels painfully tight. He has lost the bounce in his feet and the idea of ‘split-stepping’ is far from his mind.

The serve approaches. At the last moment, flat on his feet, his attention overly narrowed due to his ever-rising anxiety, John misjudges the flight and bounce of the ball. At the last second, he sticks out an arm and manages to make a late and weak connection with the ball, which flies low into the net. Game, Set and Match to his opponent.

**Anxiety and Performance**

Does this scenario sound at all familiar? I am sure it will to many of you. Anxiety and stress are universal, parts of everyday life. We have all felt anxious or stressed at some point – to be anxious is to be human. Anxiety is part of our evolutionary past (Buss, 2005), as it is for all animals; necessary for survival, anxiety triggers the ‘fight or flight’ response. That is, in situations of potential danger – real or imagined - anxiety prepares the body to confront or ‘fight’ the danger or to run away and take ‘flight’.

When somatic anxiety is excessive, it will inhibit performance. High levels of arousal and anxiety lead to increased muscular tension. As tennis success depends heavily on muscle co-ordination, high levels of anxiety can impede physical performance and cause a player to tighten up and become over-tense. Muscular tension, even at low levels, can interfere with co-ordination, resulting in poor performance (Aggelousis et al, 2001), for example: a poor or incomplete backswing and follow-through with a shot hit either too long and out or too short leaving our opponent an easy attacking winner.

Muscular tension can make our legs feel heavy and our feet ‘stick’ to the ground, resulting in slow reactions and poor or clumsy footwork, leaving us either too far away or too close to the ball when we swing.

Muscular tension can cause tightness of breath as our breathing becomes too rapid and shallow, meaning that we tire easily, especially after a long rally, after running to the net to meet a drop shot or racing to the back of the court to retrieve a lob.

If the match is close and goes to a tie break or a third set, we may have expended so much unnecessary energy through nervous tension in our muscles that we tire and fall at the crunch points.

I am sure all of us have experienced at least some of these difficulties. Every player, regardless of ability and experience, will have felt tension in their shoulders and arms whilst serving, especially at important points in the match – 30-30 in a game, 4-4 in a set, when serving to close the set or at match point – leading to a serve wide, long, into the net or the dreaded double fault.

Have you noticed how double faults seem most likely to occur at crucial and deciding moments in a match? Have you observed how one double fault in a game can so often lead to two or three in succession? That is the result of muscular tension. The serve is technically the most difficult skill to learn and is often the difference between winning and losing, especially in a game between two evenly matched players. Like any skill, under pressure that which is most difficult, least mastered or most recently learnt is the first to fail.
One quick and easy way to manage our anxiety on court is to learn the skill of breathing control to reduce the impact of somatic over arousal.

**Breathing Control**

We breathe on average 20,000 times every day (Mosby, 2009). Although breathing is natural, something we do without thinking, awake or asleep, a great many people breathe incorrectly. In fact, when asked to take a deep breath, most people do the exact opposite and take a very shallow breath. Typically, whilst taking a deep breath, they raise their shoulders and suck in their stomachs. Essentially, this only uses the top part of the lungs.

Often, people find that they are breathing too fast, which can actually lead to a condition called hyperventilation. Hyperventilation is rapid or deep breathing, usually caused by anxiety, in which fast, shallow breathes rid the body of carbon dioxide too quickly, affecting health (Bradley, 2007).

Shallow breathing does not give the muscles and brain the amount of oxygen needed to function correctly. Shallow breathing can create muscular tension, tiredness, interfere with athletic activity and produce aches, pains and illness.

Learning to breathe deeply initiates the activity of the parasympathetic nervous system and elicits the relaxation response, reducing stress and impacting positively on general health.

Deep breathing can relieve all types of aches and pains, from headaches to backache, from stomachaches to chest pains. Deep breathing allows the blood pressure to return to a normal level; it releases the body’s natural feel good hormones (endorphins).

Learning how to breathe correctly has in certain studies been linked to lowered blood pressure, reduced symptoms of depression, fewer hot flushes in menopausal women, increased fertility and even a reduction in cancerous cells.

**Are you a shallow or deep breather?**

There is an easy exercise to do to identify whether you are a shallow or deep breather. Place your left hand against your lower abdomen and your right hand on your chest. Breath out completely. Now take a deep breath. If the hand on your stomach moves out when you breathe in and the air seems to flow in easily to the bottom of your stomach, you are breathing deeply. If when you take a breath, the hand on your stomach moves in as your stomach pulls in, and the hand on your chest moves out as your diaphragm expands, you are breathing too shallowly.

**Breathing exercises**

Deep breathing is the simplest and most basic method of relaxation. Often, the first sign from our body that we are becoming stressed is when we start to breathe rapidly with shallow breaths. This can often then lead to increased palpitations.

Taking deep, slow breaths reduces the heart rate, slowing it down and therefore reducing physiological arousal. Deep breathing helps relax the muscles in the shoulder and neck. It can provide an opportunity to focus attention away from the stress of the game. Deep, slow breathing can be an immediate, accessible and powerful way of reducing physical anxiety on-court during a match (Peden, 2007). It is also very helpful to utilise this at the break between games.

One of the best things about breathing exercises is that they are quick and easy to do; they can be done at any time and in any place without drawing the attention of others to what you are doing.

1. Breathe out deeply, contracting the abdomen.
2. Breathe in slowly as you expand the abdomen.
3. Continue to breathe as you expand the chest.
4. Continue to breathe in as you raise up your shoulders towards your ears.
5. Hold the breath for a count of 3.
7. Relax the muscles of your shoulders and chest completely.
8. Repeat 3 or 4-times until there is a sensation of calmness.
9. At the same time, it is helpful to focus on positive self-talk.

**REFERENCES**

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