

# avoid the choke

practice techniques to wipe out stress



**W**ith the arrival of January, *Bowling This Month* readers will reflect on their past year's performance on the lanes and develop New Year's resolutions for 2009. In the revision of your list, do not forget about making a resolution for improving your mental game. Specifically, learning to deal with anxiety and the onset of stress during important tournament moments will yield a significant improvement in your game.

We have seen the results of anxiety played out on national television. On November 27, 2005, I watched the talented PBA exempt player Joe Ciccone melt under the pressure of nearly achieving his first professional title, disintegrating in the final three frames, as he handed Jason Couch the title. Ciccone clearly encountered anxiety and watched in fright as a certain victory slipped away, due to a change in his mental state. He went from dominating the match, throwing five out of six strikes in the front

six frames of the game, to giving the title away with unforced errors and splits. As the match evolved, Ciccone's physical game changed as he became engulfed in heightened anxiety.

All viewers who watched this match witnessed an event that is familiar in sports. Year after year, we see a percentage of elite athletes fall prey to a faulty situational mental game problem appearing in big tournaments or key moments. Anxiety sets in and the response is extremely detrimental.

Many readers who are golf fans will recall the monumental collapse of golfer Greg Norman in the 1996 Masters. Norman went from certain victory with a 6 stroke lead at 54 holes to handing the title to Nick Faldo and losing by 5 strokes, after 72 holes. Norman shot a final round of 78. It doesn't matter how good you are, anxiety and stress will bite you in big moments if you have not prepared yourself to deal with it.

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After seeing this unfortunate result for Ciccone, I asked myself if he had formally practiced visualizing himself in this position of leading a match against a future Hall of Famer. Once Couch sniffed an open opportunity, he stepped up and closed the door with three strikes in the tenth. Ciccone, with his head in his hands, could only ask why and reflect on what could have been.

Have you found yourself in a position where you have not taken advantage of the situation and fell short in a tournament? From my experience, most bowlers I work with have not tapped into mental tools to improve the mind's side of the sport. This includes elite bowlers with great potential. Until a bowler dedicates himself to the mental game, he will not be able to reach his potential in the sport. The affects of anxiety on performance are clear. It will hurt your performance unless you learn to recognize it and take proactive steps to reduce it.

### **Impact of stress and anxiety on performance**

Stress and anxiety can impact you in many ways, including affecting your behavior, emotions, physical response and how you think. Some likely reactions to a stressful situation include: an increased heart rate, nausea, tension in your muscles, inability to focus, irritability and moodiness. Awareness of your reactions is critically important. As you take your task more seriously, maintain a focus on recognizing what is happening to you as you are involved in a stressful tournament situation. What are you thinking? How are you feeling physically? How are you feeling emotion-

ally? How are you behaving? Most importantly, recognize that changes are happening. Without addressing these, you will not be able to maximize your performance in the most important tournament situations. The reality is that stress and anxiety, gone unchecked, can lead to a decrease in your ability to execute quality shots.

Recent research on brain chemistry and elite sport performance has shown promise in understanding the impact of the mental game and performance. Specifically, researchers found that elite marksmen released alpha waves just prior to their archery shots. Alpha waves are related to creativity as well as the waves released when we are at a restful state. And, most interestingly, these alpha waves are released in the left side of the brain, balancing the distribution of brain activity. Specifically, the release was in the left temporal and parietal lobes.

But, stress can reduce these positive affects, even in elite athletes. To illustrate, when an individual encounters anxiety, the benefits of quiet eye are diminished. As I have discussed previously, elite athletes have a longer target gaze with less eye movements. Specifically, when encountering stress, eye movement increases, the area of targeting widens, and gaze time decreases (Buzzell & Seyfort, 2006). Consequently, anxiety contributes to a decrease in target accuracy.

Stress can change how your brain works in the moment. In 2001, Golf Digest sponsored a science in golf contest. In the winning entry, Arizona State University professor Dr. Debbie Crews demonstrated the impact of stress on putting performance. High-level amateur golfers were asked to

first attempt 10 putts on a flat green. To induce stress, Dr. Crews introduced a financial reward or punishment in round two of the research project. If the golfers could perform better, sinking more putts, than their original ten putts, they would earn \$300. They were also told that those who did worse than their original putting performance would be required to pay the golf doctor \$100.

This stressor impacted the golfers, both positively and negatively. All golfers experienced stress, but some were able to perform better than the others. In other words, they were able to not be impacted negatively by the stress. Through EEG images, Dr. Crews illustrated that golfers who putted successfully under stress had more equally distributed brain activity on both hemispheres while those who choked had activity only on the left side or the more logical hemisphere.

Those golfers who could draw on their more creative intuitive brain were more successful while those who thought about their mechanics failed (paralysis by analysis). Clearly, the successful golfers were able to tap into a creative visualization process.

Other research has illustrated the importance of utilizing visualization as part of improving one's consistency. In a well-cited study, Alan Richardson's research on the impact of visualization in free throw shooting revealed that daily visualization led to nearly an equivalent improvement in one month, as compared to those who actually practiced free throws at the gym daily.

Richardson tested three groups who all shot free throws to establish a baseline. One group did nothing



for the next 30 days, while one group shot free throws on a daily basis. The third group visualized successful free throw shooting on a daily basis. When the groups were tested at the end of the month, the group that had practiced free throws daily had improved by 24 percent, while the group that merely visualized quality free throws improved 23 percent.

In addition, research in pre-shot routine consistency has illustrated the impact on performance. In the December 2004 *Journal of Sport Behavior*, Czech, Ploszay and Burke examined the impact of a pre-shot routine in basketball on performance. Although the players who used a set routine prior to every shot outperformed non-routine players, the players who utilized a pre-shot routine improved significantly more, as compared with those who didn't on the second free throw. A pre-shot routine had a clear impact on improving performance.

### **Improve your game and minimize stress and anxiety**

- When you realize that you are becoming stressed, sit down, take a deep breath and hold it for one second before exhaling. Repeat this process three times. Closing your eyes and breathing also release alpha waves. Focus on changes in your thinking, your physical response, emotions and behavior.

- Prior to every shot, be sure to do the same pre-shot routine, exactly each time, prior to every shot. Pat your hand with rosin, grab a puff ball, wipe the oil from the ball, dry your

hand with the air drier, etc. In addition, in this phase, think about the exact technical mechanics you will use such as foot placement, hand position, target, etc. After you recall these technical requirements, using the left hemisphere, go to the approach.

- As you transition from the pre-shot routine to the approach, recall a favorite song, close your eyes and inhale deeply. These steps will help your mind release alpha waves and prepare the subconscious for a quality execution.

- As you set your feet on the approach, visualize a successful shot in your mind. Take another breathe, exhale and go.

- Use the Quiet Eye technique. This will help you stay in the present and be less distracted.

At home, visualize yourself bowling successfully for 10-20 minutes daily. To begin, close your eyes and think about the specific bowling center of an upcoming tournament. During this visualization, try to draw on all of your senses. Hear the sounds and imagine the smells and visual scenes that would be present in achieving your goal, from bowling your first 200 to winning the AMF World Cup. What does this process look like? What does it feel like? Sound like? Smell like? Think about achieving your goals. Imagine the crowd. The more integrated all of your senses are in visualization, the more effective it will be when you actually are in the situation.

The next time you visit a bowling center be sure to collect concrete

sensory data for use in your visualization exercises. Commit to at least one month of visual exercise to reap a benefit. And, don't be skeptical. Without a strong commitment, you will be wasting your time. But, for those who are willing to commit, you will see a future improvement in your game. Specifically, you will be preparing for being ready for key moments in your bowling career.

### **Improvements for both camps**

Bowlers who want their game to evolve to the next level must focus on improving their mental game and establishing visualization routines and training with the mental potential of their minds. This includes bowlers who want to simply improve their average or those who want to compete successfully at the international level. Both camps will improve their performance significantly by addressing anxiety recognition and dealing with anxiety. 

### **References**

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