YOGA PRACTICE FOR SPORTING PERFORMANCE

Yoga's influence on the physical and mental preparation of athletes for performance is growing as coaches and athletes begin to recognise the value of yoga techniques and apply them to sport. In this article Greg Wythes examines how the relationship between sport and yoga has developed and now flourishes.

The rise in professionalism in sport over the last two decades has had a ripple down effect to virtually every level of sport. No longer does it seem enough to have natural talent and to play sport simply for enjoyment. What is now required on top of talent is the development of this talent by the many and various means available in the contemporary sporting world, and by fine-tuning these natural abilities so that the full potential of the sportsperson can be achieved. At the higher levels of professional sport this can involve a support team of coaches, managers, trainers, health, fitness and diet consultants and sport psychologists, but the person most responsible for coordinating, or at some levels, assuming, many of these responsibilities, is the coach.

The nature of coaching has changed radically in this period, and continues to change at a rapid pace. The use of technology, science, medicine and psychology in training programs has become standard procedure and reveals a willingness by coaches to draw on a broad spectrum of tools to give their team or athlete the winning edge. Increasingly yoga is becoming one of these tools.

Bruce Power has had a great deal of experience coaching athletes at all levels of ability. Up until recently he was head swim coach at the Wollongong University Aquatic Centre – dubbed 'the stroke guru' by some of his staff - as well as lecturing in ergonomics at the same university. He has been the swimming coach of the Australian Paralympic Team, but his expertise has not been confined to one field. He was sports trainer and team manager of the Illawarra Hawks Basketball Team and has worked as a triathlete coach and race director for the Illawarra Triathlon Club.

Bruce had been aware of yoga since the mid 1980's but over time his interest grew and three years ago he began to take regular classes with Iyengar teacher Lesley-Ann Absolom.

"Immediately I began to notice a better awareness in my body," Bruce says. "My ability to relax improved and I just felt better physically. Previously I had a tendency to slump, but I noticed my posture improved and I began to feel more upright. After one particular class where the emphasis was on the back, I felt 3 inches taller for days."

Lesley-Anne started Bruce in a normal class setting then followed with a series of private lessons on Bruce's request,.

"What I wanted to do initially was to correct Bruce's posture," says Lesley-Ann. "I noticed that he had a slight lumbar lordosis or swayback and that his abdomen was pushed forward over his toes rather than above his arches. So we worked in some of

the standing poses, like Trikonasana or Triangle, to move the weight from the pads of his feet back towards the heels.

"He was hungry to learn from the very first class," continues Lesley-Ann. "He couldn't believe how sore he was the day after a class, - especially after all his experience with other methods of training, - and at how deeply he was able to work into his body."

Though Bruce is naturally quite flexible, Lesley–Ann began to notice how the structural changes that yoga was bringing to his body began to alter the way Bruce functioned in the pool.

"Poses like Chataranga Dandasana, the Crocodile, brought a yoga awareness to his shoulders and arms to help with his stroke, and even though Bruce was quite loose in the hips, the standing poses and downward facing dog began to have effects on his balance and the efficiency of his kick."

Bruce could see immediately how the asanas and the stretching techniques could have beneficial applications to basketball players and triathletes.

"In general basketballers have very tight muscles because of all the jumping and landing involved in their sport, and this leads to injury. Their balance – surprisingly – and their proprioception* are quite poor as well, but yoga can help significantly in these areas. But they need a lot of motivation to practise. Stretching is hard work for them because they are so tight. And because they are professionals, with a busy playing and training schedule already, they don't often want to do anything extra that's not already built into their program."
**Proprioception is the ability to sense clearly what is happening in the muscles, tendons and joints, especially movement, contraction and stretching.*

However for players who can find the time and make the effort to pursue a regular yoga practice, the rewards can be very significant. Kareem Abdul-Jabbar, considered by many to be the greatest centre, maybe the greatest player in U.S. basketball history, and a player who showed remarkable resilience during a twenty year career in professional basketball, attributes his sporting longevity to yoga. "There is no way I could have played for as long as I did without yoga," he says. "My friends and teammates think I made deal with the devil. But it was yoga that made my training complete. As preventative medicine, it's unequalled."

Bruce has found that triathletes on the other hand, have totally different requirements to basketball players. "Triathletes are often over-trained and over-motivated. They rarely take time off and punish themselves with long training periods every day, to cover the bike, swim and run components of their sport. This problem is compounded with older triathletes who may be juggling work and family commitments as well. Yoga helps them to slow down and take some time out. With this kind of training schedule the majority of injuries are from over-use. The stretching and relaxation elements of yoga are of great benefit to them."

With his broad range of expertise and experience in sports coaching Bruce has observed the different needs, not just of each individual sport, but of different groups within each sport.

“Swimmers generally are hypermobile, that is their joints already have quite a high degree of mobility, and don’t really need as much stretching as they do strength development. Teenage swimmers especially suffer injuries for this reason and also because they lack body control and proprioception skills. Freestyle swimmers need to develop strength in the shoulders, and poses like downward dog and crocodile are beneficial. Breaststroke swimmers however need both hip and knee strength and flexibility work.”

Yoga, through its emphasis on awareness of the body and of the sensations within the tendons, the muscles and the joints, helps to develop a consciousness of how particular movements are performed. Often an athlete, particularly a younger athlete, can have natural talent in their chosen sport but be quite unconscious of how their body performs the movements specific to their sport. They just do it, virtually instinctively. Yoga can make these movement patterns conscious, as well as generally making the athlete more conscious in their body. When the awareness of the sensations in a muscle group grows, the motor function of these muscles can be improved.

“One teenage swimmer I coached,” explains Bruce, “had little control of her shoulder blades during the lifting phase of her stroke. The shoulder blades moved in a series of small jerks over her ribcage. By working to develop awareness in this area through yoga techniques, her proprioception and control improved till the shoulder blades began to move in a fluid way again and her stroke became smoother and stronger.”

SPORTS PSYCHOLOGY and YOGA

Sports psychology is almost as important to the contemporary competitive athlete as their physical training schedule. When the physical element of their training has been taken to its limit, and as athletes search for something that will give them the winning edge, the key is often found in mental preparation. The sports psychologist now plays an integral role in the preparation of athletes for competition at professional levels. Some athletes seem to have come upon these techniques naturally, others through coaching or contact with yoga, or with methods that have their roots in or common ground with yoga.

The essential feature of these techniques is an internal stillness, a focus that brings the attention of the athlete from the normal movement of the mind, from random and discursive thought, into the present moment. These are the lessons of savasana, the deep relaxation practices of yoga and of meditation, and often the bridge to this state of internal quiet is the breath. In this practice a level of the mind is accessed where suggestion, imagery and visualisation can take on a much higher degree of power and effectiveness. In the hands of the coach, the sports psychologist or the athlete these techniques can be viewed as a form of applied meditation.

The language and the methods of the sports psychologist and the yoga teacher bear remarkable similarities. In 'Winning the Mental Way' (Step-up Publishing) sports psychologist Karlene Sugarman writes that: "Relaxation provides a mind-body integration necessary for peak performance." And the two basic relaxation techniques she propounds are circle breathing and a progressive relaxation session, both of which would be very familiar to even beginning yoga students. "It's important to note," she continues, " that the days of pep talks to psych up your team are over. Rigid tight jawed determination is not the key, a sense of relaxation and letting go is. The athlete/team that is mentally and physically relaxed and has quiet intensity is the one to come out on top." And these skills of relaxation and quiet intensity are just the same skills that are practised and developed in virtually any yoga class.

Bruce Power has observed how theses techniques can help athletes he has coached. "Yoga aids the competitive edge of swimmers by giving them the mental tools to switch off between events and to prepare them for the next event. It helps them to get their head around the requirements of different events such as going from the 100metres freestyle to the 200metres backstroke. It gives them the skills to relax the body outside of the class."

A further extension of these techniques is the introduction of visualisation and imagery. Yogis have long used these methods to control involuntary responses in the body such as heart rate and oxygen consumption, enabling some adepts to even be buried for periods of time, in a kind of human hibernation. Of course this kind of feat requires years of specialised training. The use of visualisation and imagery in the contemporary yoga class is used more as a method to control the sympathetic nervous system and to reduce the effects of the 'fight/flight' reflex that so many of us are prey to in the modern world. The biofeedback approach utilises these same techniques in a medical setting to treat a wide range of conditions. And the application and practice of visualisation and imagery techniques can have a powerful effect on sporting performance.

Michael Murphy in "The Future of the Body"(Tarcher Inc1992) reports how Jack Nicklaus and Arnold Schwarzenegger use visualisation to enhance their performance. "I never hit a shot," says Nicklaus, "even in practice, without having a very sharp, in-focus picture of it in my head. First I 'see' the ball where I want it to finish…Then I 'see' the ball going there…Then there is a kind of fade-out and the next scene shows me making the kind of swing that will turn the previous images into reality."

"A pump when I picture the muscle I want, is worth ten with my mind drifting," says Schwarzenegger, who declares that his training to win the World BodyBuilding Championship depended to a large extent on mental practice.

During visualisation of a movement or action the brain will activate the sensory and motor neural patterns involved in the action, but in a way that allows those patterns to be more finely attuned. Visualisation helps the body to slow down complex movements and to isolate the component parts of each movement. Then when the movement is performed the brain has the memory of a movement that is closer to the perfect form of that movement, closer to the ideal movement, and can then use that memory or neural pattern as the basis of the performance.

This kind of visualisation trains the nerve pathways in the brain in a way that simply performing an action without this focus cannot achieve. And because the mind is fully engaged in the process there is, as well, an internal stillness, a release from the normal 'drifting' movement of the mind. When Carl Lewis was at the height of his athletic powers, and holder of the world record for the 100metres, 200metres and long jump, as well as being a member of the U.S. sprint relay teams, his physical training and competition schedule was so demanding that virtually all his training for the long jump was done mentally, through step-by-step visualisation of the entire sequence from run-up, through take-off, to movement in the air and landing.

Heather Turland is one of many successful Australian athletes who rely on a repertoire of mental skills to prepare for an event. Heather is something of an enigma in the contemporary athletic world. A supremely gifted athlete, but at an age when most marathon runners have long retired, the mother of four continues to compete and, as she did in the 2002 Sydney Marathon, continues to win. At this level though the risk of injury is ever present.

"It's a fine line," says Heather, " between peak fitness and tipping over into injury. You have to learn to listen to your body to prevent injuries. But most elite athletes carry some kind of injury, and many, particularly long distance runners, use stretching or yoga to minimise or treat their injury problems."

For Heather though, one of the major tools is control of her thoughts and this becomes even more critical during the race. "Visualisation is a big thing for me," she says. "And affirmations. I write down affirmations and call on them around the 30km mark in a marathon. I have them written on the drink bottles that I pick up at various stages during the event. The danger is slipping into negative thoughts, so affirmations and self-talk throughout the race is very important."

Heather has examined video footage of her gold medal win at the Kuala Lumper Commonwealth Games and sees a strong correlation between her performance and the nature of her thoughts.

"There was a period at one stage of the race when my thoughts turned negative. My posture and my form slumped. My family watching the event on TV thought that it was over for me. But when I was able to regain control of my thoughts and return to positive thinking, my whole form changed. I powered passed a girl who had just passed me. No-one knows what I'm thinking during a race. Just me. And I have to stay positive and in charge.

"Two or three days before an event I go deeply into myself as well. By then I know I've done the work, the physical preparation. I visualise myself being strong and go through my race plan. I use this time to prepare mentally, quietly for the event."

The practices that yoga has developed over thousands of years continue to have relevance and application to many aspects of modern life, and not the least of these is the world of sport. With very little modification yoga can be applied to meet both the physical and mental needs of the contemporary athlete. All that is required is the motivation to practise.

And in a world where athletes recognise the need to expand their training program, and a world where health and fitness fads pass like fashion accessories, it is yoga's longevity and its mature vitality that affirms its value.

"I've seen fitness fads come and go," says Bruce Power. "But the historical aspect of yoga gives it more credence. Yoga has the background, proved over time."

Greg Wythes is a massage therapist, IYTA teacher and teacher of Posture and Flexibility. He is based in Thirroul, in the northern suburbs of Wollongong, where he holds classes and maintains a bodywork practice. He can be reached on 0242682048 or at gwythes@yahoo.com.au