

30 YEARS' EXPERIENCE IN THE INDUSTRY AN INTERVIEW WITH MICHAEL DONAGHY, AEP AND SPORTS SCIENTIST

BY CAMELLA BRIGHTMAN, MEMBER COMMUNICATIONS OFFICER

With over 30 years' of experience in the exercise and sports science industry, can you tell us a little about your career, Michael?

My inauspicious start in exercise and sports science really commenced with the boycotting of the Olympics in Russia in 1980s. West Germany hockey decided to tour Australia. I was studying at Kuring-gai College in Sydney (now the University of Technology, Sydney) and was able to do some time motion analysis of the NSW vs West Germany game. On advice from Dr Warwick Spinks in 1982, I headed west to the University of Western Australia in Perth and completed my degree in Physical Education with specialisation in Human Movement Science.

At the same time, needing a few dollars to survive, I coached rugby league professionally at South Perth. I soon discovered that I was also the Strength & Conditioning Coach, the Sports Scientist and the Sports Psychologist all rolled into one. This was the era of the bucket and magic sponge approach to player health and injury management. We initiated many exercise and sports science type changes to the club. For example, I introduced a form of circuit training in pre-season which we would now call boot camp, and I used mental rehearsal and breathing techniques in warm ups. That year, South Perth won both First and Reserve Grade and were runners up in Third Grade.

In an effort to improve players' ball handling skills, I founded the Southern Districts Touch Association in the off season. Right from inception, it was a success with both men and women forming teams to play. At the same time, I was also managing a gym, or more specifically, a "conditioning centre", and writing strength and conditioning programs for local athletes.

I then took a full time job teaching health in Darwin before moving back to Sydney. In 2012, after raising a family of four children, I had the chance to complete my Masters in Clinical Exercise Physiology (Rehabilitation), and with my oldest son, start a health and training facility in Sydney. The rest is history.

Where has your passion and focus for touch football come from, specifically regarding hydration and recovery?

I feel that once you start playing touch football, it doesn't take long to understand that the varied running intensities, accelerations/decelerations, player's spacing, and subtle ball handling skills all combine to give you a genuine high intensity workout in a short space of time. Add in the comradery and social interactions you gain and it can become quite an addictive sport. Touch football is a very inclusive sport and caters for a range of abilities and ages across genders. So it was easy to develop a passion and focus for something that ticks off many of my fitness and health boxes. I am 59 years of age and I still play in the Vawdon Cup (which is a representative level), often against players 10, 15 or 20 years younger than me. Over the years, touch football has proven to be good medicine.

HYDRATION

Whilst playing rugby league and touch football in the heat in Darwin, I noticed there was more attention to hydration than what we had emphasised in Perth in the past. In Darwin, I was able to fine tune my own hydration needs which for me was to drink more water. I noticed though that some players preferred diluted sports drinks.

From Darwin, I went to work in Sydney but returned a few years later with the NSW over 35s men's team to play in the 1990 National Championships. It was here that I first witnessed the deleterious effects of exertional heat illness upon individual players who were either not adequately hydrated and/or not acclimated to the hot/humid conditions. My passion arises from not wishing to see players suffer at endurance style tournaments.

Dealing with unrelenting accumulated fatigue is a major factor at state and national touch football tournaments which can last between 3-4 days.

RECOVERY

From 1987 to 1991, I took the NSW combined high schools boy's and girl's teams on tours to New Zealand, Cook Islands, Tonga and Hawaii. At North Harbour, Rotorua, and Wellington, I used pools and walking as part of our recovery protocols to great effect. When you are playing touch football in 9 out of 10 days straight whilst on tour, you soon learn to appreciate the value of good recovery and adequate sleep.

In 2013, I also added to my knowledge recovery principles from Dr Stephen Bird at Charles Sturt University in Bathurst. Dr Ric Lovell at Western Sydney University has also provided much insight especially into optimising warm up.

Starting then with the Sydney Scorpions as their regional Sports Scientist and now as their High Performance Manager, I have been able to witness change within the sport from junior elite to elite. So I guess that passion drives change and change fuels passion.

Your recent work has been with the Scottish Touch Association – what has this entailed?

I support the Scottish coaches with advice and resources covering a number of areas including hydration and general nutrition, recovery, injury prehabilitation, performance management, and planning for the forthcoming Touch World Cup in Malaysia in April 2019. This has included:

- » Designing and filling hydration and nutrition timing planners for squads at tournaments
- » Providing recovery practices and protocols and resources
- » Drafting performance management and coach/player feedback tools
- » Daily information, resources and updates on my 'by-invitation' Facebook page
- » Tools for understanding athletes' physical and mental characteristics.

The Head of the Scottish Junior Touch Academy, Simon Ebbett, reported that the support and advice on nutrition timing, hydration and recovery were crucial to Scotland's success at the 2017 European Junior Championships, where Scotland won two out of the three U18 divisions. The women's 27s then picked up a silver medal at their Euros a short time later, using the same protocols.

The Men's Open Head Coach, Monica Wallace, reported that Scotland's Men's Open team has seen fewer injuries, particularly to hamstrings and knees, since implementing evidence-based warm-up structures and prehabilitation exercises over the past two tournaments.



Players with a history of severe cramping are reporting no cramping, and the team reported after the recent European Championships that they felt they could have continued their performance levels for further days of competition.

Tell us about the Australian junior teams that attended the Youth World Cup in Malaysia recently and your hydration and recovery strategies.

In April 2018, Touch Football Australia (TFA) sent their national youth touch teams to the Youth World Cup in Putrajaya, Malaysia. The contingent consisted of 3 x U18 teams (boys, girls, mixed), and 3 x U20 teams (boys, girls, mixed). Working closely with the TFA Head of Performance, Wayne Grant, my role was to provide constant advice, support, guidelines and resources to the junior elite athletes, coaches and support staff, particularly pertaining to hydration and recovery protocols. One challenge was that the junior's contingent were considerably inexperienced on an international stage.

Examples of the assistance provided includes:

- » Development of hydration plans and implementation methods
- » Consultation on warm up and recovery programs
- » Provision of recovery materials such as towels, compression socks, massage therapy ball, cooling towels, bags, etc.)
- » Pre- and post-tournament surveys such as sleep quality, RPE's and sweat loss estimation
- » Instructing on the use of pre-cooling techniques in the Substitution Box.

Wayne reports that, "Australia won all six of the contested divisions at the 2018 Youth World Cup, and as such, ultimately became the Youth World Cup Champions. The point of difference the teams displayed in comparison to opponents was the manner in which Australian players were able to sustain their performance levels across the duration of the tournament, despite the extremely hot and humid foreign conditions."



"Additionally, there were an extremely limited amount of injuries (including cramping) sustained by Australian juniors. This was particularly impressive considering the playing conditions."

How did you find yourself working within the international sector as a Sports Scientist? Any advice for other members on how to encounter these opportunities?

Currently the centre of excellence in touch football is in Australia. What this means is that coaches and teams from overseas regularly will visit us to gain the latest insights and trends in the sport. For instance, at the Sydney Scorpions Training camp at the Narrabeen Sports Academy, I recently met high level coaches from Switzerland.

The major hurdle then is the tyranny of distance, not to mention time zone differences. So in order to keep in contact, I created a private collaborative sports science and medicine Facebook group for touch football coaches, players and referees. Currently I have members from NSW, QLD and SA, plus from Switzerland, Sweden, Scotland, England, and South Africa.

So my advice to members then is to find your passion and start collaborating with like-minded individuals. Don't worry about rejection or criticism at all, just go where you are wanted. You will be surprised at how quickly you establish a solid reputation in your area of passion and expertise.

Can you shed some light on Touch Football Australia's newest competition, NRL Touch Football? What has your involvement been?

In 2018, this initiative happened very quickly. The elite players were introduced to the concept at this year's Trans-Tasman in April, and then in May they played in major stadiums such as ANZ in Sydney, Suncorp in Brisbane and 1300 Smiles in Townsville. There were six inaugural teams in both men's and women's; Parramatta Eels, Wests Tigers, Newcastle Knights, Brisbane Broncos, Gold Coast Titans, and North QLD Cowboys. The current National Touch League Elite 8 players were able to slot straight in to the competition.

NRL Touch Football has two broad aims to justify its creation as expressed by their marketing and communications manager Alice Ellis.

"To increase the visibility, profile and credibility of the sport of touch football, in order to grow participation (if people, particularly kids and parents, are more exposed to the sport, they're more likely to be interested in getting involved, and if kids realise there's that elite pathway, they're more likely to be inspired by these athletes to follow in their footsteps)."

"The other aim is to highlight the relationship between the two codes. Touch football was born out of rugby league 50 years ago, and the NRL Touch Premiership helps remind people that touch football is the non-contact, family-friendly, fast form of rugby league, and that the two sports work in partnership to provide a place on the field for everyone."

The main health issue for me was the mental and physical fatigue associated with adding another layer of competition into an already crowded schedule. To ameliorate the effects of accumulating fatigue, we arranged for the Parramatta Eels women's team to take time off from their next campaign (Vawdon Cup) to freshen up.

The NRL Touch Football field dimensions are slightly shorter and the playing surface was different to usual suburban grounds. My advice then related mostly to the specificity of training, which was to train on similar fields and replicate the adjusted field dimensions. For 2019, the NRL Touch Championships are expecting an expanded and longer competition with the Auckland Warriors now confirmed as a new entry into the competition. We are hoping for another affiliate/permit to be announced soon too.

Having worked with a range of champion sporting teams, what has been a career highlight for you?

In the men's competition, Penrith men's open come to mind. I had coached the Penrith men's 30s in 1986 and then the Australian Coach, Dave Nolan, asked me to return to help prepare the Men's Open team for the 2016 NSW State Cup. I started with GPS and gathered enough data and relevant metrics to change their physical training. The team had lost the Vawdon Cup final to Wests, but we were able to overturn the result at the State Cup.

There is also the Manly Women's Open who won the 2017 Vawdon Cup and NSW State. The entire team backed it up playing for NSW Scorpions to win the National Elite 8 in Coffs Harbour. The same team formed the backbone to the Parramatta Eels in the inaugural NRL Touch Premiership this year.

In the junior's, I took the Parramatta U18 girls who were seeded outside the top six to go through undefeated to win the 2017 Junior State Cup. This was the first team to

implement my recent hydration and recovery protocol with stunning success.

Both Manly and Parramatta women went through a recent period where they suffered an unfair glut of ACL injuries. These non-contact injuries have had a horrendous effect upon the players, their families and the teams. One of my highlights has been to positively intervene with training load and intensity guidelines and develop a touch-specific ACL Prehab program at the end of training sessions.

The ACL Prehab is a little different in that I use minimum dose approach – I ask, “What is the minimum number of exercises, sets and repetitions needed to influence the largest response?” Players are finished ACL Prehab inside of four minutes, so it’s a thumbs up for being practical.

Moving ahead, I am looking forward to GPS testing the NSW men’s and women’s teams at next month’s State of Origin – it will be the fastest touch football yet.

You have worked with a range of women’s sporting teams – what has your reaction been to the increased support of women in sport in Australia? What more needs to be done?

It’s been brilliant. In touch football, we already have a history of clear pathways – the elite women are highly skilled and are the current world champions. In fact, touch football have supplied a number of the players into the Rugby 7s and NRL Women’s programmes. For example, Charlotte Caslick, Nicole Beck, Alicia Quirk, and Emilee Cherry played for Australia in touch football before playing in Australia’s gold medal winning Rugby 7s team. Gemma Etheridge played mixed open representative, while Evania Pelite and Emma Tonegato played for Australian youth teams. So 7 out of the 12 players came from elite touch football.

I also asked Sammy Rogers, who plays for Manly Women’s Open, NRL Touch Parramatta Eels, NSW, and Australia, what she thought and she stated, “*Women’s sport in Australia has grown from strength to strength over the past few years. Having support and access to sporting facilities and expertise has helped women’s sport become more professional. The professionalism of the Manly Women’s Opens team can be largely attributed to the implementation of sports science techniques. These strategies have helped to improve recovery and enhance performance. Women’s sport in Australia will continue to grow and thrive if health/sporting professionals can implement more techniques and strategies to improve the quality of both the athletes and the sport itself.*”

So what needs to be done? More of the same.

What advice would you offer to any students who are thinking of going down the sports science pathway?

Your undergraduate degree is only the first step, so continuously get out into the community and get as much varied experience as you can, and preferably in paying jobs.

At all times, use and develop observation and reflection within your skill set.

Beware that the only thing that doesn’t change is that there will always be change.

Be open to the idea that, at times, you will prove yourself wrong.



UNSW’s students’ feedback on their experiences at touch football with Michael Donaghy and his team.

“Michael was a great supervisor and prompted further professional development during this placement.”

“A great learning environment with a wide array of staff and clients – from apparently healthy clients, to those from the NDIS – it really tested my clinical knowledge. I learned the need to be adaptable amongst clients presenting with all sorts of conditions, something the staff were really good at. As the placement lasted 20 weeks, it didn’t drag on or feel repetitive; I looked forward to every day working with Michael and the staff. They were very professional and knowledgeable and certainly made me feel part of the team.”

Would you like to be featured as a member profile in an issue of MOVE magazine? Know of a passionate member with a great story that we should get in touch with?

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