

# SPORT

SPORTS  
MEDICINE  
AUSTRALIA

# HEALTH

VOLUME 34 ISSUE 3 2016

## MEN'S HEALTH ISSUE

Five-year  
lifespan  
inequality

Tackling prostate cancer

What is a man?

Male pelvic pain



- Male genitalia injuries guide
- Knee osteoarthritis
- 2016 SMA Conference recap
- Sport and exercise medicine in Italy
- Interview with Gary Zimmerman



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## FROM THE CHAIRMAN

# COMMUNICATING WITH BLOKES ABOUT HEALTH



Andrew Jowett  
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SMA CHAIRMAN, ANDREW JOWETT DESCRIBES HOW COMMUNICATION IS AN IMPORTANT PART OF GETTING MEN TO RECOGNIZE AND ADDRESS HEALTH ISSUES.

Appropriately this edition of Sport Health follows on from the globally successful Movember month directing attention and fundraising to men's health projects in over 21 countries since being founded in 2003. Articles in this edition address key areas of men's health including prostate health, pelvic pain and knee osteoarthritis.

We know that exercise can significantly reduce the incidence of the big killers of men including those targeted by the Movember foundation – prostate cancer, testicular cancer and mental health/suicide.

Whilst the issues and risks to men's health are clearly identified, a major challenge remains in communication with men about health. I would like to focus on how we as health care providers in sport and exercise medicine can communicate effectively with our male patients and steer them in the right direction.

The stereotype suggests otherwise, but there is good evidence that men are interested in their health and do seek information and advice, although their methods may be different. It is important to understand the ways men communicate – how they receive information, how they prioritize this information and act upon it through their health care providers. Movember has been so successful in this communication through its values – Fun, Accountable, Caring, Team, Humble, Innovative, Remarkable experiences, Change agent.

In a health environment, it was identified<sup>1</sup> that men value the following approaches with their primary health care provider:

- Adoption of a "frank approach"
- Demonstrable competence
- Thoughtful use of humour
- Empathy
- Prompt resolution of health issues

It is also important to understand the effect of the environment in this communication and how some are non-conducive to communicate with men. Women make up the majority of the workforce in healthcare including in sport and exercise medicine. The facilities are often decorated by women and the collaterals are often targeted towards women – pamphlets, magazines, television etc.

Urology is a field of medicine with a large proportion of male patients and a Canadian group, recognizing the potential, applied morphological market research to identify six themes or modes that shape men's health behaviours and how those modes can be ultimately used to improve men's health<sup>2</sup>.

The modes were:

1. Learned helplessness
2. Denial of vulnerability
3. Suppression or "keep on working"
4. Controlled intervention
5. Balanced care
6. Delegating or sharing responsibility

They suggested that identifying which mode, or modes, a man aligns with can be leveraged into strategic marketing or messaging opportunities for health.

Successfully influencing men to manage their health relies on understanding how to communicate with them. Sport provides an ideal vehicle for this engagement to influence men's health decision-making. Sport and exercise practitioners need to recognize the differences and adjust their communication to suit all.



*The stereotype suggests otherwise but there is good evidence that men are interested in their health and do seek information and advice, although their methods may be different.*

# IT'S OKAY TO TALK ABOUT IT

FROM THE  
**CEO**

SMA CEO, ANTHONY MERRILEES ADDRESSES THE STEREOTYPES OF HOW MEN HANDLE THEIR OWN HEALTH AND WELLBEING.

**N**ovember was Men's Health Awareness Month and it was a great opportunity for men to reflect on their own health and wellbeing of themselves, as well as colleagues and friends. Some men will find this more difficult and challenging than others. One of the key reasons behind this challenge, is that stereotypes and cultural norms are strong drivers of behaviour in men. In society and in the media, men are often portrayed as "strong silent types". This stereotype focuses on "being in charge, acting decisively, and containing emotion." It also emphasises the image of men being in control, and that talking about one's health, feelings or well-being is a sign of weakness.

This male stereotype manifests itself on the sporting field and in the culture of some teams and sporting codes. A male sporting participant is probably more likely to view a knock or injury as a

badge of honour, and exercise control by wanting to play on or return to play, when doing so comes at the risk of further injury or adverse health consequences.

One of the significant challenges for Sports Medicine Australia over recent times has been tackling this male stereotype in the context of concussion, and in particular ensuring that participants understand the over-riding message of exercising caution and conservative management in relation to return to play and physical activity when a concussion or suspected concussion has occurred.

We think this issue can be better addressed if players, coaches, parents and officials understand this stereotype, and counter it by establishing a culture within their team or sporting code that allows men and boys to feel comfortable about owning up to injury or illness, or not returning to play when it's not safe to do so.



**Anthony Merrilees**

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*One of the significant challenges for Sports Medicine Australia over recent times has been tackling this male stereotype in the context of concussion*

# 5 MINUTES WITH PETER DORNAN

5 MINUTES WITH...PETER  
DORNAN, PHYSIOTHERAPIST,  
BRISBANE PHYSIO



## ***Tell me a little about your sports medicine background.***

I started in private practice 50 years ago in 1967, virtually straight from the University of Queensland. I had a strong sporting background in athletics, boxing and Rugby. In my first week in practice I was invited to become the inaugural physiotherapist for the Queensland Rugby team. This developed into also becoming physio for the Wallabies, Kangaroos and several other national teams - all in the first year. I joined up with the NSW Branch of ASMF (as SMA was then) also during that first week. In 1969, I attended the ASMF Annual General Meeting and Conference in Sydney and they invited me to start up a Queensland Chapter. My work colleague was Dr Kevin Hobbs, Queensland Rugby League MO so we co-founded the Queensland Branch in 1970. I was on the National Board for seven years and the Queensland Board for twelve years, and have attended every Queensland AGM since inception (44 years). My experiences led me to write the first Australian books on Sports Injuries, one co-authored with Richard Dunn. I became a Foundation Fellow in 1984. I am still the Principal physiotherapist in my own practice.

## ***What does a typical day for you consist of?***

I always start the day, every day, with a regular discipline of completing an hour's exercise. This routine is varied, consisting mainly of resistance training and cardio. This sets me up for the day. My typical work day is one of consulting and treating from 9am to 6pm, with two hours break for lunch, book work, phone calls - mainly counselling men diagnosed with prostate cancer, and 20 minutes' meditation (which I have done for 40 years). Two mornings a week I take off for creative activities (see question on 'best advice'). My overall work amounts to a 40-hour week.

Over 50 years, I have morphed from Sports to Musculoskeletal to Men's Health (incontinence) to my current special interest of Pelvic Pain. I can see any number of variations of these presentations in a day. This makes the day always interesting. Some patients are extremely challenging, particularly the Pelvic Pain patients. 'Pelvic Pain' makes up 80% of my practice now, most patients suffering from a Persistent Pain state resulting from neural hypersensitivity. I try and restrict my evening meetings to about two a week.

## ***What is your favourite aspect of your job?***

It is the challenge of the variability of every 'pelvic pain' patient who walks through the door. The average time it takes for a correct diagnosis is four years. They may have seen up to 20 Health Professionals, undergone innumerable invasive and non-invasive procedures and be markedly depressed. To be able to help them reach a clear diagnosis and guide them through a successful treatment program is extremely rewarding.

## ***What has been the highlight of your career?***

It would be tempting to select one of the International Sporting events (out of about 100), or a particular elite athlete who I helped to achieve success. However, clearly, writing two books on Sports Injuries which have influenced a generation of Sports Medicine professionals and athletes would have to be the most rewarding. This is a legacy which others have already built on.

A highlight of my Men's Health Advocacy was to be selected as one of the convenors of the three most successful support groups in the world. I was invited to speak at the International Psycho-oncology Society (IPOS) meeting in Washington last year, receiving a standing ovation (my only one). A great highlight of my Pelvic Pain special interest area was to be invited to talk at Chicago in October this year

at the International Pelvic Pain Society (IPPS) meeting on my specialised musculoskeletal approach to treatment.

My other highlights were the two National Awards presented to me. One was the 2000 Commemorative Australian Sports Medal, being one of only four Queenslanders in Sports Medicine to receive one. I was the only Physiotherapist. The other was becoming a Member of the Order of Australia (AM) in 2002.

### What do you think the benefit of being a SMA member provides especially within your field?

The original benefit for me was to gain more knowledge and experience in managing sporting injuries. However, I soon realised that all members gained extra benefits by being part of what was probably the first medical multidisciplinary institution. It encourages us to collaborate with other Health Professions to gain the best possible outcome for our patients. The networking, generous sharing of information and equality between disciplines simply pushes the bar higher.

### Besides from sports medicine, what are you passionate about?

Once I had devised a business plan for my life, I was able to really reveal and nurture my creative side. I have studied

classical sculpture for 40 years now and have works in major Australian Institutions and personal collections. I have also found pleasure in creative writing and have published four military books, three of them best-sellers (10,000 copies). The first was on the Battle of Isurava on the Kokoda Track (*The Silent Men*), the next was about an Australian Fighter Ace, Nicky Barr, which is now being made into an epic movie, one on Tobruk and El Alamein, (*Last Man Standing*) and the final one on the most successful submariner in WWII (*Diving Stations*). I love the Classics and Music. I am a wannabe singer. I am very keen on travel as a means of adventure and gaining cultural experiences.

### What's the best piece of advice, anyone has ever given to you?

During our pre-marriage preparations 50 years ago, the counsellor advised that my wife Dimity and I should set aside time to share a cocktail hour every evening. This is because every morning when we leave for work, we have the potential to be influenced by various external words, thoughts, ideologies, situations and people. By discussing these events and fortunes, good and bad, we can weld over cracks that may develop in our relationship.

The other piece of advice relates to lifestyle. After working intensely for the first ten years of my married life, to the point of becoming jaded and

run down, I needed to re-assess my priorities. A book I was reading at the time suggested I approach my life as a business, to develop a business plan with dynamic balance. I would divide my life into sections - professional, financial, creative, social, cultural and personal, which included appropriate attention to exercise, diet and rest, to do this, I pigeon-hole my day. Envisage a five or 10-year plan and where you would like to be, and then be disciplined towards achieving it.

### Name four people, living or not, you would invite for a dinner party and why?

Bill Bryson - Bryson wrote "*A short history of Nearly Everything*". The book allowed me to place my life in perspective when measured against the origins of the Universe, of the origin of life and its species. It takes into consideration cosmology, geography, chemistry, physics, and every other "ology" that reveals who, what and where I am. It fulfils what the ancients at Delphi proposed, "First of all, know thyself".

James Mitchener - a great writer. Mitchener would take up to four years to research and write a book which allowed us to learn about history through the human experience. Such books as *Tales of the South Pacific*, *Hawaii and Centennial*, stand out. His own biography 'The world is my home' resonates with me.

William F Cody - Buffalo Bill. I love the Wild West. Cody's life was the epitome of adventure and entrepreneurship, as he strode through every page of this era. Soldier (Civil War), Pony Express rider, wagon train driver, buffalo hunter, Army scout, Indian fighter, actor, showman - taking his Wild West show of 300 participants around America and Europe for 30 years, visionary builder - he founded a town, Cody, which became the gateway to Yellowstone.

Dimity Dornan AO - my wife. Dimity founded a charity, Hear and Say, 25 years ago, to teach deaf children to speak and listen. Her Centre, with 70 staff, now influences and teaches in 42 countries worldwide. After 50 years of marvellous cocktail hours, I still have no idea how her mind works - she is clearly from Venus! However, she is a great cook and I'm sure will help me host the other three.

## FAVOURITES

**Travel destination:** I love to travel anywhere, but particularly love Pacific Islands. I am a nesophile.

**Sport to play/watch:** Not a great spectator, will watch Rugby, but would prefer to hike and challenge myself by climbing mountains.

**Cuisine:** Mediterranean

**Movie:** Avatar - innovative story concept and brilliant 3D special effects. Also, South Pacific & High Noon.

**TV program:** Documentaries and Movies

**Song:** Not easy. I have 5,300 favourites on my iPhone. I'll go for "O Soave Fanciulla" (love duet) from La Boheme by Puccini. Elvis and "Love me Tender" and "Danube Waves" by Ivanovici.

**Book:** *Lorna Doone* - Classic Universal story - boy grows up in village, threat from outside village, boy fights outsiders, transformed in the process then marries the girl. What's not to like?

**Gadget:** Easy - the best toy ever made - my iPhone.

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# THE QUEST: WHAT IS A MAN?

PHYSIOTHERAPIST PETER DORNAN PROVIDES A HISTORY OF HOW THE ROLE OF MEN HAS CHANGED THROUGH TIME, WITH THEIR OWN HEALTH SOMETHING THEY NEED TO FOCUS ON.

# THE QUEST: WHAT IS A MAN?

A man must go on a quest  
To discover the sacred fire  
In the sanctuary of his own belly  
To ignite the flame in his heart  
To fuel the blaze in the hearth  
To rekindle his ardour for the earth  
— Sam Keen

This issue of Sport Health is dedicated to Men's Health. The first question is "Why Men's Health?" For that matter, "Why Women's Health?" Why not "Human Health?" Most aspects of our health can be studied as simply human, however some are given gender category, why?

At a recent national scientific symposium highlighting research into Men's Health and prostate cancer, some universal questions were asked,

"Why don't men look after their health better?"

"Why must men appear to be invulnerable, stoic, never wrong and always-in-charge?"

"Why don't men communicate better concerning matters related to their health?" - "Why do they give the impression they have their heads in the sand?"

These questions are not just directed at older men. More than 40 percent of men over the age of 40 suffer serious health problems, including heart disease, strokes and cancer.

These are valid questions and the answers can't easily be found by relating them to the present. For solutions, we have to draw a long bow, back about two million years. We must discover what events ignited this resistant, patronising and potentially dangerous behaviour, and in the process, reveal why it has persisted right up until modern times.

Early in this era, (*The Pleistocene*) our ancestors – *homo erectus*, had just stood upright. To survive, they formed nomadic hunter-gatherer tribes wandering the

African plains. This developed into a sharing of roles. In the process, it changed male/female behaviour, physiology and relationships forever. Society's needs dictated that men should evolve to be the hunters - to provide, to kill large animals and furnish protein-rich meat. They formed teams, building strong bonds of mateship as they spent all day singularly focusing on tracking and chasing their prey - a bond that is still strong today, as evidenced in military and sporting sodalities. To be successful, they needed strength, endurance and speed so they developed more testosterone to enable this. This also had the effect of increasing their competitiveness and risk-taking tendencies, while also helping them to develop another strong male characteristic - to be warriors - to protect, to fend for the tribe and their families.

Their women-folk accepted the role of gathering, searching for local food, berries etc., caring for their children and their habitat. Society also delegated women to look after their partners and family's health. This was a good move and something they have done admirably, lovingly sharing their lives. There is a third role - the strongest - which defined us as males - Sex. This completes the scenario of who we think we are - the three P's, to Protect, to Provide and to Procreate.

There is no denying that this last motivation, to procreate, is what drives us most. Going back even further, this zeal was sharpened when our species was no more than a vertebral column with gonads and a brain power just strong enough to illuminate an electric light bulb. If an attractive member of the opposite sex wandered into our awareness, our brain would light up and we would act instantly before a predator or competitor could beat us. We still have this reflex - witness as an attractive woman "makes an entrance" at a function. A male's attention can be instantly diverted. A civil and strong character will respond with a mere flicker of the eye-balls - a less inhibited one will follow like a magnet, (at

the risk of a good 'clip' from his partner). Nevertheless, the three P's are ingrained into our definition of who we are.

And we have lived our existence by those 3P's steadfastly through the generations. Whether it be through frozen European ice-ages hunting mammoths, the American plain hunting buffalo, fishermen living by the ocean or as modern corporate warriors circling a good deal. Or even the ultimate gladiator sport, Politics.

This vision has persisted up till recent generations, where men were invested with an ingrained, heroic stout-hearted image of themselves, resonating back to



*More than 40 percent of men over the age of 40 suffer serious health problems, including heart disease, strokes and cancer.*

days of chivalry. Three treasured Walter Mitty roles would include

- The dashing, knight in shining armour
- The valiant cocky, fighter-pilot
- The unflinching gun-fighter.

These are roles we still play out. (My wife teases me even now that I often walk like a taut gunslinger, waiting for a fight that's never going to happen). However, some men do grow out of this tendency as we pass through the four stages of manhood.

- 0-20 years, athletic, testosterone, competitive, top of gene pool
- 20-40 years, warrior, protective of family and tribe
- 40-60 years, tribal elder, diminishing physical powers, gaining wisdom
- 60 →, sage.

However, this is the role we've been programmed to play. Observe the television advertisements from the 50's and 60's, how the typical family is depicted. The stereotype strong and silent father comes home from work, his beautifully attired and smiling wife greets him at the door, the children are clean and fed and she presents him with the evening paper, his favourite chair, pipe, slippers, and sherry - the master of his house and domain.

WHAT IS A MAN?

THE QUEST:  
**WHAT  
IS A MAN?**



Social commentator and futurist Bernard Salt observes that this deceptive vision of ourselves actually increases as we age.

A large number of risk taking males die young and, because of poor health choices, as they age, they also die younger than females. By the mid-40's the gender balance has changed, and nature now is left with more single women than men. Now, instead of aggressively competing to be top of the gene pool, as young alpha males do, men are being feted, something they are not used to. This intoxicating female attention makes some of us susceptible to a medical condition called HDS - Hotness Delusional Syndrome. Symptoms include a wildly optimistic appraisal of their own attractiveness and a feverish belief that their jokes really are uproariously funny.

The reality is, men have always had a simplistic and auto-pilot view of their life. No need to think too much about it - the system worked. It is almost in our DNA, so, a note to our partners, you shouldn't expect men to change their perspective of life easily. (It's not in our DNA, by the way, just our learned behaviour).

However, men, in your dreams! Times and life have changed and is changing dramatically. The primary revolution started with the suffragette movement at the beginning of the 20th Century, however, the main driver of this amendment was the invention of "the Pill", contraception. In the 1960's, it unleashed a realisation that women could suddenly be 'liberated'. In less than a few generations, women have gained the ability to be independent. Gender equality emerged in all ways and areas. Generally, women simply do not need to be provided for anymore. In fact, the ancient ideals of chivalry - that is, men should be perfect gentlemen, faithful, courteous to women, pure, brave and fearless, unsparing of self, bowing before God and womankind, is considered by many today to be worthy of disdain and largely irrelevant.

Earlier generations were spawned by an unbroken line of men who were imbued with the ideals of chivalry. The reality now is that the demands for providing and protecting are not as great. Procreation remains universal but women now have a stronger voice to control elements of this aspect.

Where do we go from here? Are we to be held captive in an ivory tower of our 'manhood', isolated from emotion, vulnerability and our greater humanity?

Psychologist Karen Nixon says this is wrong. Aggression and vulnerability are human qualities, not gender roles. They have been unnaturally suppressed, rendering us powerless and inexperienced when we are confronted with any threatening disease or loss.

Is there a way out?

Firstly, we must begin to see life with greater awareness - to live it illuminated by insight and purpose, rather than one left unexamined due to ego, pride or apathy. This may translate to living a fuller life with more complexity. We must be prepared to go through a process of transformational change. This means entering a period of self-reflection and reinvention. It means going on a quest - a glorious quest, to rediscover the fire, the sacred fire, that which ignites the flame in our belly (as the introductory poem by philosopher Sam Keen suggests).

This doesn't necessarily mean doing 'a Hemingway' - going into war zones, bull fights, all-night drunken binges, hunting and killing large carnivores, four marriages etc. Conversely, it also doesn't mean we should bury our masculine mojo under a boring existence that stands in for actual experience.

It does mean we need to acknowledge our testosterone-fuelled existence and behaviour and our risk-taking tendencies. We need to challenge ourselves responsibly. We can do this by playing sport - hard, being adventurous, climbing, diving, travelling and taking part in vivid activities which create an approach to the masculine life, fully lived. (Hence the need for Sports Medicine Australia!)

It starts by altering our perception of who we are, or were, challenging all previous roles placed on us by institutions, school, churches, government, parents and history and start to rebuild our identity from scratch. This means accepting that a male is a human being with human

“

*The reality is, men have always had a simplistic and auto-pilot view of their life. No need to think too much about it - the system worked.*

# THE QUEST: WHAT IS A MAN?



*Firstly, we must begin to see life with greater awareness – to live it illuminated by insight and purpose, rather than one left unexamined due to ego, pride or apathy... Secondly, men must regain responsibility for their health - from a young age! We must learn to be proactive, learn about screening, heart-health, diet and all aspects of health and fitness.*

qualities. We need not be aggressive or invulnerable and we will achieve more efficiently by sharing and collaborating with our partners. Men will get sick like everyone else; they have a potential medical history, physical, mental, emotional - disease does not favour gender.

This self-directed study can have important trade-offs. It can help cut through the nonsense and sham concerning our sexuality. Men actually generally relate better to male company; they understand them. Likewise, women relate better to women's company (after all, men are from Mars, Women from Venus - and viva la difference). They come together because the powerful drive to perpetuate our species, sex, is the strongest drive of all. These insights can help us better understand ourselves and women.

Secondly, men must regain responsibility for their health - from a young age! We must learn to be proactive, learn about screening, heart-health, diet and all aspects of health and fitness. We must regularly consult with our GP. It makes sense to discuss and share health concerns with our partner, but we retain the ability to be in charge. We must be the commander and architect of our health.

Penultimately, as health professionals, we need to encourage males to believe that it's okay to seek advice for treatment, we must create more male-friendly practises. This may mean developing environments that reflect men's interests, such as displays of information and Health posters related to men, as well as books and magazines discussing Men's Health, sport, aviation, etc.

Finally, to keep driving this concept forward, we need to keep encouraging and supporting institutions that reinforce Men's Health, such as Andrology Australia, Movember, Beyond Blue, Prostate Cancer Foundation of Australia, Men's Sheds and Cancer Council Australia.

## ABOUT THE AUTHOR

**Peter Dornan**, is a Physiotherapist who runs his own physio clinic, Peter Dornan Physiotherapy, in Brisbane, Queensland. He has had a long and distinguished career in Men's health, with his focus now on Pelvic pain.

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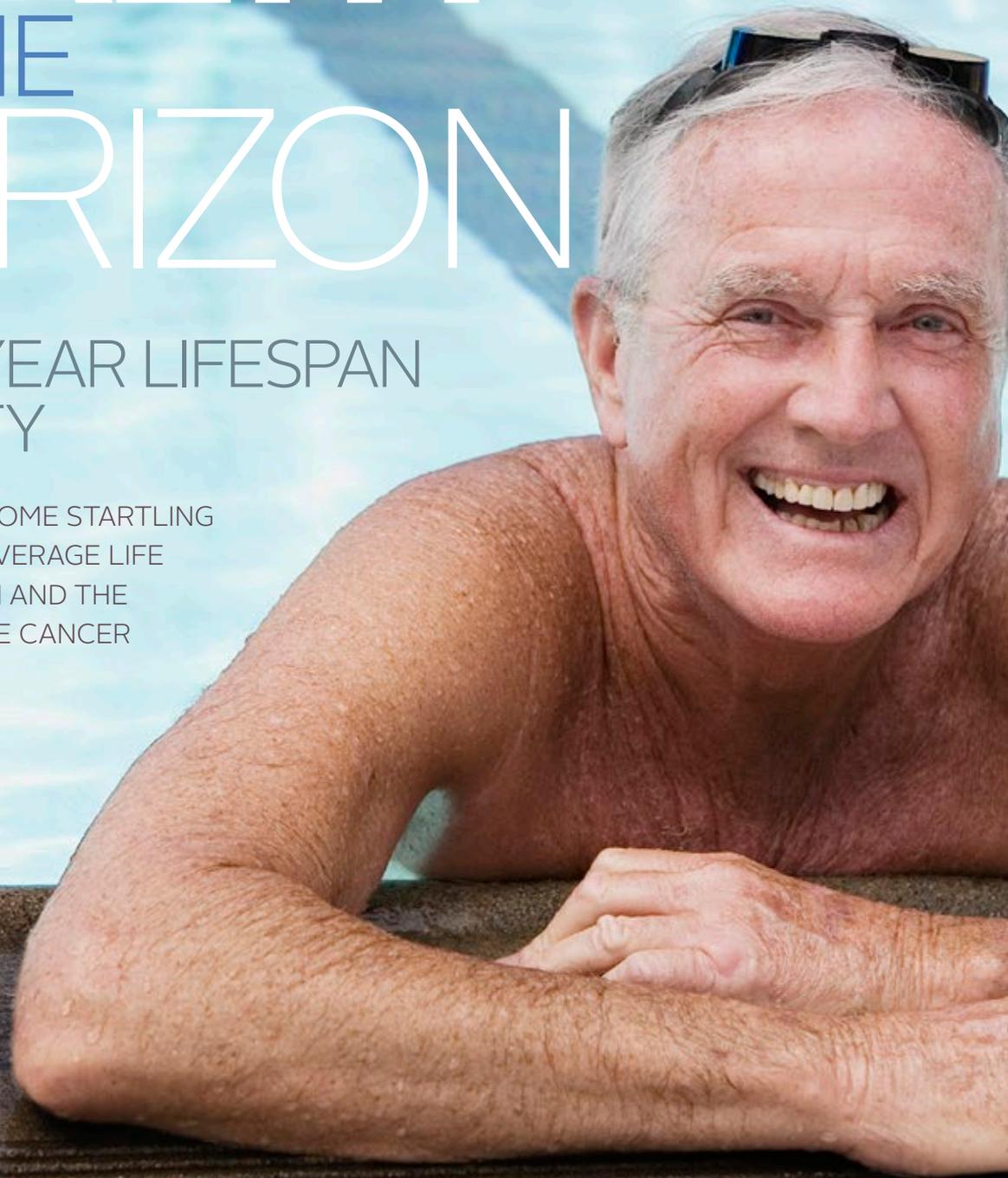
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# MEN'S HEALTH ON THE HORIZON

## THE FIVE-YEAR LIFESPAN INEQUALITY

JO MILIOS PRESENTS SOME STARTLING  
FIGURES ABOUT THE AVERAGE LIFE  
EXPECTANCY OF MEN AND THE  
DANGERS OF PROSTATE CANCER



# MEN'S HEALTH ON THE HORIZON

As I sit in seat 55K on an Emirates A380 heading home to Perth after a whirlwind European tour teaching Men's Health Physiotherapy, I cannot help but reflect on how similar the global health picture is for men. Be it downtown Dubliners, the proud Portuguese or distinguished English gentlemen, the news is not good and it is universal.

In stark contradiction to women, men are living an average five years less than their female counterparts, regardless of geography. The W.H.O.'s 2015 statistics state that globally men live to an average age of 68 years whilst women make it to 73. In Australia this is 80 and 85 years, UK 79 and 84 years, and even worse, 2016's Olympic home, Brazil, has a staggering eight year gap at 79 and 71 years. As the mother of two sons aged 11 and 15 and a daughter, 13 years, I'm not comfortable with the likely reduced lifespan of the 'XY's in my household. Should they be looking to choose a partner five years older than themselves to make theirs a longer union? Or should we take stock and try to figure out why? What is happening to the 'stronger' sex, the 'macho' male who cannot seemingly expose cracks in his armour despite detriment to his long term survival?

Looking at what knocks blokes off the perch, the top five causes are all preventable and eight out of the top 10 can be minimised with a little education. In order, Cardio-vascular disease, Lung Cancer, Respiratory illness, CVA/Stroke and Prostate Cancer all strike fiercely. But exercise, weight management, a healthy diet, not smoking, reducing stress and actioning preventative health measures can potentially change everything.

Take prostate cancer for example. It bodes the title of being the most commonly diagnosed cancer in men globally and strikes more men than breast cancer does women. At a likely diagnosis rate of

1 in 2 men with a positive family history and a 1 in 6 likelihood over the lifespan of an average male, the opportunity to test with a PSA blood test has been hotly debated. But recently, the Australia-New Zealand Urological Society (ANZUS), released a media report expressing concern at the resurgence of rising advanced prostate cancer statistics in the USA, in the background of reducing support for PSA testing there in recent years. There had been well deserved scrutiny as men with minimal prostate cancer – with Gleason Scores of 5 and 6's – were being quickly shunted into radical prostatectomy by the newly introduced robotic-assisted surgical technique, by surgeons keen to fill their waiting rooms. Fortunately, Australia did not follow their lead and prefers to 'watch and wait' – i.e. to act only when absolutely necessary. We actually "watch" more men than we "treat" with diagnosed prostate cancer – something we should be proud of!

The reality is that 95 per cent of men diagnosed and treated for Prostate Cancer will not die from it, but the quality of life side effects such as urinary incontinence and erectile dysfunction may forever change the way they *live*. These can have massive impacts on self-esteem, confidence, relationships, manhood, mood and libido. So much can be done to positively address these issues and most men just need a little education and a few tools to assist. The biggest problem, however, seems to be asking for it.

Currently, evidence based research suggests only 22 per cent of men regain their erectile function at two-years post radical prostatectomy, although if *penile rehabilitation* is instituted as early as possible following treatment, these results begin to double at the very least. What's also true is that only 16 per cent of men are concerned at their sexual health prospects around the time of surgery, yet at one-year post-op this is more like 66

per cent, with at least 15 per cent of men regretting their decision to have treatment. For a man who has radiotherapy, his potency may take three-years to decline and this result equates to the same outcomes as surgical patients when measured at the same time. Yet, instant relief can be a meagre phone call away.

Penile rehabilitation means the use of any medical or therapeutic agents to assist penile health following treatment for prostate cancer. Due to the surgical and radiotherapy techniques to treat prostate cancer, the nerves and blood vessels responsible for erectile blood flow can be disrupted causing penile shrinkage, reduced length, girth, urinary leakage during orgasm and permanent flaccidity. However, pelvic floor exercises, PDE5 medications like Viagra, Cialis and Levitra, penile prostaglandin injections and vacuum erection devices (pumps) can all be utilised to assist recovery. The more men know about these aids and the sooner they commence them following treatment, the more optimistic the potential outcomes.

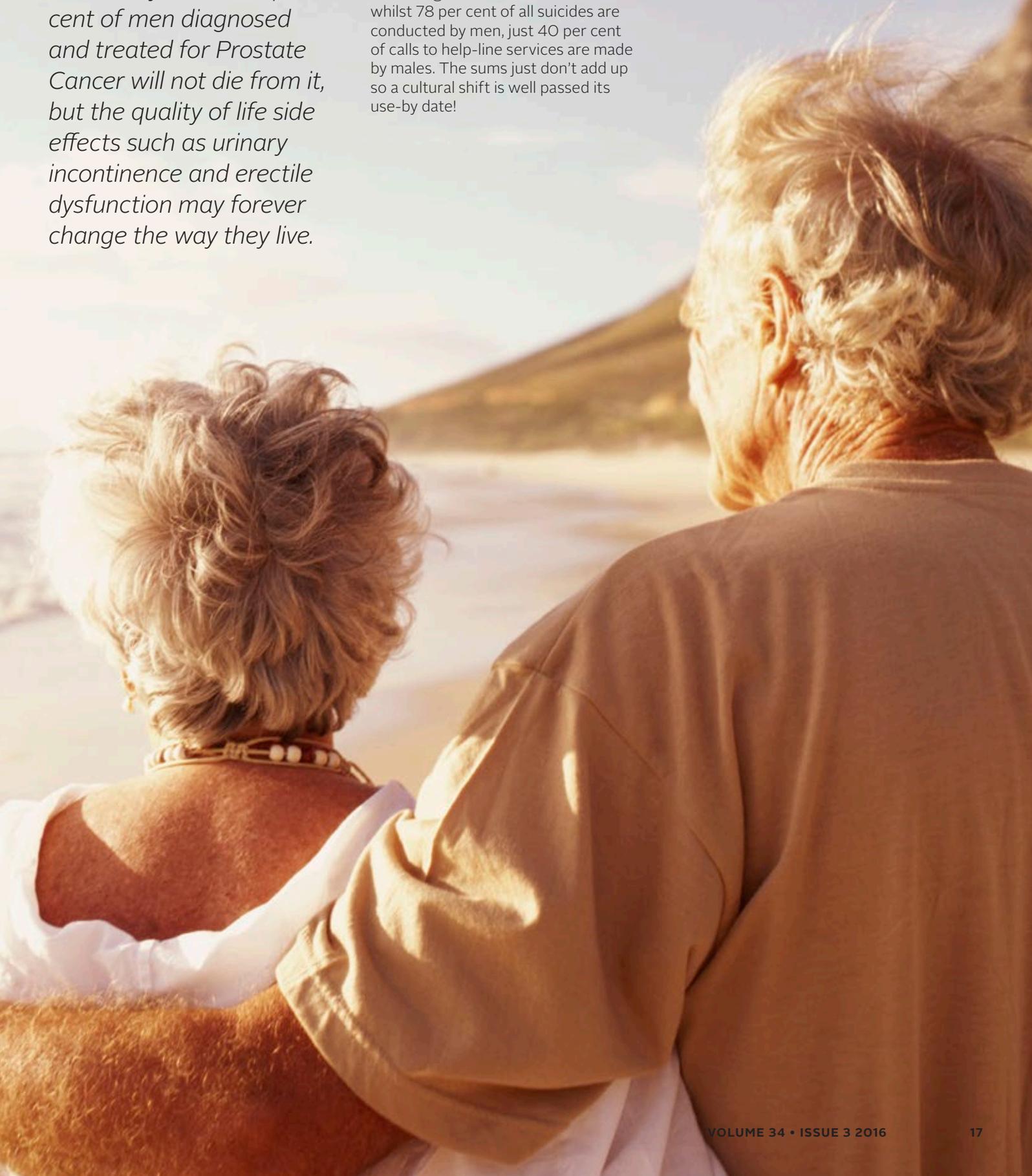
Any urologist or sexual health physician should be equipped with the answers and urological nurses and physiotherapists working in these fields are a great help too. This is also true for 'leaky bladders', where no man should ever be incontinent for more than one year. It's a 'routine' physiotherapy consult for me to see men 10+ years following treatment and to still able to offer hope and a cure.

How? Just like erectile dysfunction, urinary incontinence and bladder frequency & urgency are expected outcomes from treatment for prostate cancer. Men can expect to become DRY – pad free – in 98 per cent of cases within 12 months if appropriately referred for physiotherapy and pelvic floor muscle training. The use of continence pads should be a temporary situation and anyone still suffering with leakage after

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*The reality is that 95 per cent of men diagnosed and treated for Prostate Cancer will not die from it, but the quality of life side effects such as urinary incontinence and erectile dysfunction may forever change the way they live.*

a year of intensive physiotherapy should be encouraged to seek urodynamics and possibly corrective surgery. Simple slings or an artificial urethral sphincter (AUS) can be placed into the pelvic area to drastically improve function and these are usually very well tolerated. Again, help is abundant, but men are habitually slow at seeking it out. Another sad fact is that whilst 78 per cent of all suicides are conducted by men, just 40 per cent of calls to help-line services are made by males. The sums just don't add up so a cultural shift is well passed its use-by date!



# MEN'S HEALTH ON THE HORIZON

Above all else, however, is the benefit of exercise. Just by walking 150 minutes/week and adding in two hours of more vigorous exercise such as a gym or cycle session/week, 70 per cent of all cancers are preventable. This is good news for the one in two men who will be diagnosed with cancer in their lifetime, versus the one in three women. Incidentally if incontinence or ED is an issue, muscle training during exercise will improve tone, strength, endurance and reflexes, especially if the PFM's are activated simultaneously. That's as simple as "lifting

the nuts to the guts", a few times quickly then a few times slowly. Just another phone call/email away!

Make 2017 your year to shape up! Losing weight, getting in some daily exercise and addressing health issues before they become catastrophic events is highly recommended. With five years survival to catch up on, it's time to get cracking. And for me to get home to my boys!



#### ABOUT THE AUTHOR

**Jo Milios**, Is a men's health physiotherapist and PhD candidate at the University of Western Australia. You can follow her on Twitter at: @prostajejo

Useful links  
[www.menshealthphysiotherapy.com.au](http://www.menshealthphysiotherapy.com.au)



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# MALE P



# PELVIC PAIN

## A MUSCULOSKELETAL APPROACH FOR TREATMENT

PETER DORNAN PROVIDES A DETAILED LOOK AT MALE PELVIC PAIN, USING A PAST EXAMPLE AND HIS EXPERIENCE TREATING THE CONDITION.

An Australian International soccer player, based in England, presented at my rooms complaining of persistent groin, scrotal and perineal pain. He had endured these symptoms for fifteen months and now simply could not run, as impact created massive flare-ups in these regions.

He had undergone many rigid musculoskeletal assessments, considering such aetiologies as hernias, damage around the groin triangle, adductor muscle pathology, symphysis pubis involvement, iliopsoas, rectus abdominis and hip pathology, plus biomechanical analysis related to his pelvis including foot alignment. Urological, gastrological, haematological and STD's were ruled out. This is a classic presentation of male pelvic pain. I will get back to this case later.

Athletes regularly present with symptoms of pelvic pain. The Mayo Clinic cites that pelvic pain is pain in the lowest part of your abdomen or pelvis. It may refer to symptoms arising from the reproductive or urinary systems or from musculoskeletal sources. It can sometimes radiate to your lower back, buttocks or thigh.

The most common presenting signs, symptoms and conditions are ones which relate to compromise of the pudendal nerve. This nerve supplies every main structure in the pelvis and controls erectile function and bladder and bowel function. Patients can present with pain, numbness or altered sensations in the scrotum, penis, labia, vulva, perineum, pelvic floor region, anorectal region, bladder & prostate regions, urgency and frequency - urinary or faecal, and sexual and erectile problems including pain after ejaculation or orgasm.

# MALE PELVIC PAIN

## A MUSCULOSKELETAL APPROACH FOR TREATMENT

My interest in this subject began as somewhat of an accident. About twelve years ago, I treated an Urologist who complained of a painful lower back after executing a split squat with weights at the gym. Diagnosing the patient as having a sacroiliac joint (SIJ) sprain, I manipulated the area and prescribed a series of exercises, unaware that the patient was also suffering from scrotal pain.

He rang up the next day and said "My back's great, thank you, but you've (also) got rid of my scrotal pain... I've been to every urologist and other specialists in Brisbane and I couldn't get rid of it. I was about to have surgery."

He then began to refer patients with unresolved scrotal and other pelvic pain - all of whom showed vast improvements. Piquing my interest, I decided to spend the next decade researching pelvic pain and in particular, the pudendal nerve, which supplies the scrotum (as do some other nerves). After five years at the University of Queensland, the results of a research study were recently published in the British Journal of Urology International, documenting a pudendal nerve case study series trial. The trial consisted of 25 male patients who presented with pudendal neuralgia complaining of variants of symptoms mentioned above. The patients had been referred by doctors on the suspicion that their issues were musculoskeletal related. I searched for SIJ dysfunction and treated the patients with a pleasing success rate of about 95 per cent.

The key ways to manage pelvic pain musculoskeletally, I found, includes methods of treating patients through manipulation, exercise, awareness of lumbar-pelvic postural implications and managing neural hypersensitivity. Hypersensitivity develops after some months as the continued stressing of the nerve has the potential to create debilitating over-reactive complex pain cycles - this phenomenon is called "Persistent Pain".

The difficult hurdle for patients is that the average time for diagnosis for a person with this debilitating condition is four years and they've consulted between 10 and 30 health professionals. They have had innumerable medical interventions and they develop all the comorbidities that go with this such as hyperalgesia, depression, and anger; they have a reduced capacity to play sport, to work, to have sex, and to take part in social activities.

A complicating factor when dealing with Persistent Pain (pain lasting more than three months) is to consider the effect of "smudging". Not just the specific area relating to the injury in the cortical homunculus (physical representation of the body within the brain) is fired up; other areas next to it are hijacked (up to 20%). This expands over the brain so it can develop changes in thoughts, sensations, images, memories, movement and emotions - the overall effect can be debilitating.

When patients get pain in their pelvis they don't immediately associate it with anything to do with their back even though it might have happened at the same time that they damaged their back.

For those who are athletic, the most common way it occurs is when they are running along and have a bit of a trip causing their pelvis (innominate) to excessively rotate on the sacrum. When they are warm and focussed, they don't always notice the incident but they may develop some back pain later on and not necessarily associate it with their pelvic pain. Similarly, long periods of excessive sitting can rotate the innominate - IT workers, taxis, couriers and pilots.

The SIJ is the largest and toughest joint in the body. Several studies agree that the average rotation of the innominate on the sacrum in the weight-bearing position is



probably less than 2.5 degrees with about 1mm in translation. Research suggests if the joint rotates more than 6 degrees, enough damage could occur to create pathological changes (scarring). I found when the innominate is excessively posteriorly rotated on the sacrum it can compromise the pudendal nerve.

Treatment involves mobilisation techniques to rotate the innominate anteriorly on the sacrum, plus education on correct postural positions.

Back to our International Soccer player. On examination, he indeed was found to have a significant posterior rotation of the innominate on the sacrum. Treatment for him involved strong mobilisations and exercises to rotate the innominate anteriorly. He was then educated on correct posture/positions, particularly in relation to sitting to prevent excessive posterior innominate rotation. We then discussed strategies to desensitize the

neural involvement, (medication, Transcutaneous electrical nerve stimulation, gentle rhythmical exercise etc.).

These treatment options were reviewed with his physiotherapist who continued to manage his condition back in England. Six months later, his physiotherapist reported he was coping very well and in fact, he was still playing three years later.

Finally, it is worthwhile reminding patients that once the cause of pelvic pain can be isolated and treated, it is possible to retrain the nervous system from overreacting. Neurons can be less sensitive; sensors can change back to the way they were; the map of the body on the brain can go back to its normal state and the muscles can regain their normal co-ordinated action. With patience and understanding, the patient can find ways to reverse their situation.

#### ABOUT THE AUTHOR

**Peter Dornan**, is a Physiotherapist who runs his own physio clinic, Peter Dornan Physiotherapy, in Brisbane, Queensland. He has had a long and distinguished career in Men's health, with his focus now on Pelvic pain.

# SMA MEMBER NEWS

## ASISCS SMA CONFERENCE PROGRAM AND BOOK OF ABSTRACTS

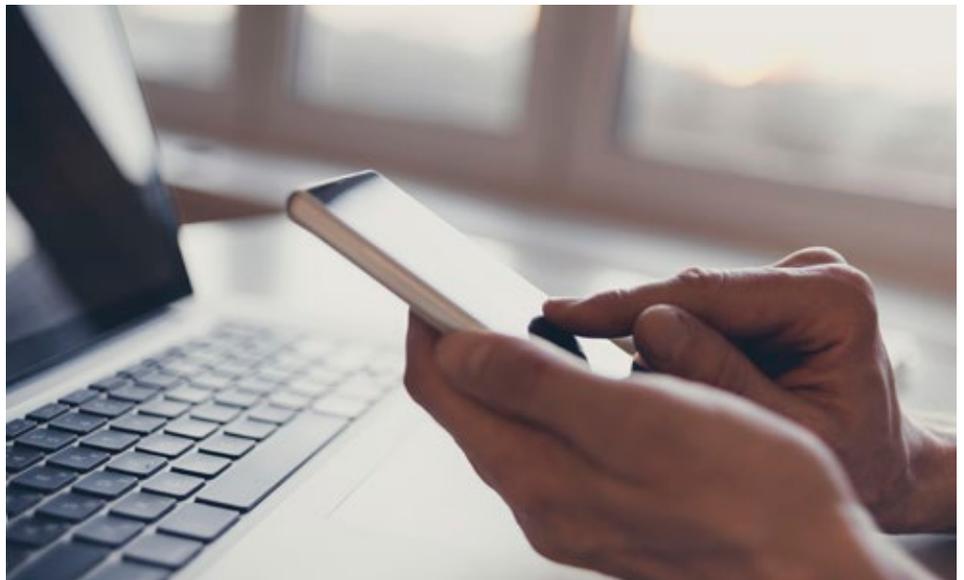
For anyone who missed out on the 2016 SMA Conference in Melbourne, the program and book of abstracts detailing the full list of presenters can be downloaded from the SMA website. The booklets feature the complete list of speakers and researchers with their chosen field of research. Click here for all the details.



### SAVE THE DATE

## 2017 ACT STATE SYMPOSIUM

The 2017 ACT State Symposium has been set for Saturday February 4<sup>th</sup> at the Kangaroo Valley Golf & Country Resort. Registrations now open.



## SMA SOCIAL MEDIA

In streamlining our social media, all state Facebook and Twitter accounts have been replaced by @SMA\_Courses on Twitter and the Sports Medicine Australia Courses page on Facebook. These accounts will feature sport safety course information nationwide.



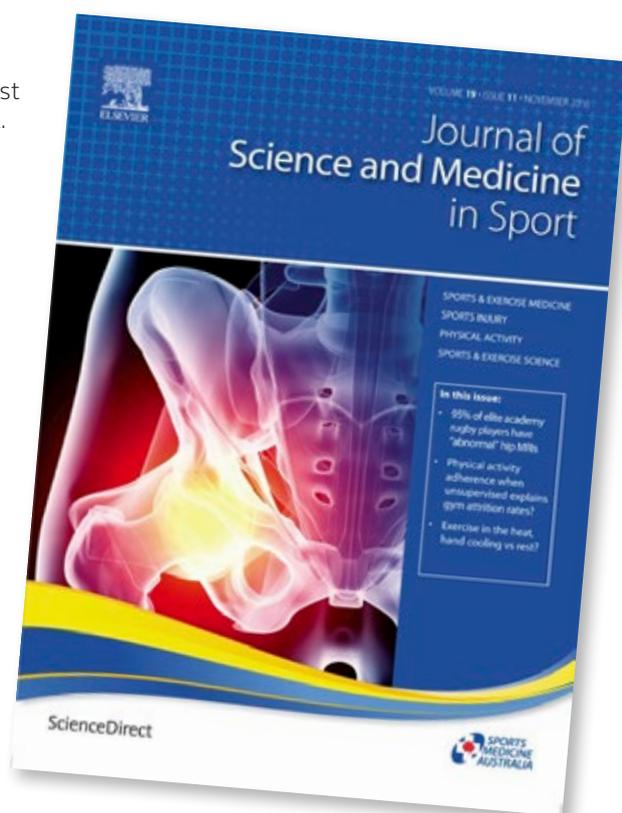
# JOURNAL OF SCIENCE AND MEDICINE IN SPORT

(VOL 19 ISSUE 11 NOVEMBER 2016)

## HIGHLIGHTS

- The development of a subjective assessment framework for individuals presenting for clinical exercise services: A Delphi Study. [More.](#)
- Adherence to physical activity in an unsupervised setting: explanatory variables for high attention rates among fitness centre members. [More.](#)
- Reduction in body temperature using hand cooling versus passive rest after exercise in the heat. [More.](#)

To access visit [jsamrs.org](http://jsamrs.org)



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Remember to visit the SMA online store. It has everything you need for first aid, including the full range of taping equipment. Click here to start shopping!

<http://smaonlinestore.com.au/>

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# 2016 SPORTS MEDICINE AUSTRALIA CONFERENCE

ERIN WALSH GIVES YOU ALL THE HIGHLIGHTS FROM THIS YEAR'S SMA CONFERENCE.



The home of sport in Australia, the Melbourne Cricket Ground (MCG) provided the perfect location for the 2016 Sports Medicine Australia Conference (formally known as 'be active'), held from October 12th-15th, with everyone embracing the combination of three conferences which offered a mix of sports medicine, sports science, sports injury, injury prevention, and physical activity clinical & research content.

With just on 700-delegates in attendance, the support for the conference well and truly exceeded our expectations and they were all treated to an amazing array of high calibre presentations and presenters.

The conference was officially opened with the Refshauge Lecture by Professor Peter O'Sullivan, informing the eager audience that it may be time to change how we understand and manage back pain in sport!

Professor O'Sullivan was joined by other high calibre and insightful keynote speakers including Dr Paul Balsom, Dr Tony Marsh, Professor Glenn Gaesser, Professor Toomas Timpka, Dr Jay Hertel and Dr Tim Hewett.

While being blessed with such high-quality presentations, it made it very hard on our judges when it came time to award time! Congratulations to Sarah Warby from La Trobe University, who took out the ASICS Medal for 2016 for her research on rehabilitation programs for shoulder instability.

Our popular social calendar once again didn't disappoint, with delegates enjoying catching up with old and new friends over many drinks throughout the week, and the amazing backdrop that is the MCG, ensured that all events were well attended. The Conference Dinner was a highlight, with the MCG "lit up" for the occasion and delegate photos being shown on the big screens!

Sports Medicine Australia would like to thank all conference partners and trade exhibitors for their involvement in the 2016 Sports Medicine Australia Conference, most notably the major sponsors ASICS for their continued support of the conference and La Trobe University. SMA also owes its thanks to the Conference Chair Ms Kay Copeland and the committee consisting of Professor Garry Allison, Professor Andrew Cresswell, Dr Anita Green & Dr Luke Kelly, Dr Dara Twomey, Mr Mick Drew, Professor Philip Morgan and Professor David Dunstan.

All Conference abstracts will be published online as a supplement to the Journal of Science and Medicine in Sport. More details about this journal, including subscription information can be found at [www.jsams.org](http://www.jsams.org)

We hope that all those who attended the 2016 SMA Conference were encouraged by the research being undertaken in the industry and we look forward to seeing you all back in Langkawi, Malaysia for the 2017 ASICS Sports Medicine Australia Conference, 25th-28th October!





# AWARDS

We would like to congratulate the fantastic 2016 SMA Conference Award Winners.

## ASICS Medal – Best Paper Overall Miss Sarah Warby

The Effect of Rehabilitation Programs on Multidirectional Instability of the Shoulder: A Randomized Controlled Trial.

## BEST PAPER AWARDS

### ASICS Best Paper – Clinical Sports Medicine

#### Mrs Andrea Mosler

Ethnic differences in bony hip morphology: a cohort of 445 professional soccer players.

### ASICS Best Paper – Exercise and Sports Science

#### Miss Sarah Warby

The Effect of Rehabilitation Programs on Multidirectional Instability of the Shoulder: A Randomized Controlled Trial.

### ASICS Best Paper – Physical Activity and Health Promotion

#### Dr Jordan Smith

Mediators of change in screen-time in a school-based intervention for adolescent boys: Findings from the ATLAS cluster RCT.

### ASICS Ken Maguire Award for Best New Investigator – Clinical Sports Medicine

#### Dr Martin Krosiak

Surgical treatment of lateral epicondylitis: A prospective, randomised, double blinded, placebo controlled clinical trial.

### John Sutton Award for Best New Investigator – Exercise and Sports Science

#### Ms Leila Nuri

Three-Dimensional Deformation of the Achilles Tendon during load in people with unilateral mid-portion Achilles Tendinopathy.

### ASICS Award for Best New Investigator – Injury Prevention

#### Dr Christina Ekegren

Ten-year incidence of sport and recreation injuries resulting in major trauma or death in Victoria.

### ASICS Award for Best New Investigator – Physical Activity and Health Promotion

#### Miss Magdalena Wilczynska

Integrating cognitive mentoring, smartphone technology & the outdoor environment to increase PA: Mental health outcomes among adults at risk/with T2D.

## POSTER AWARDS

### ASICS Best Poster – Clinical Sports Medicine

#### Miss Georgia Fox

Twelve-month outcomes following surgical repair of the Achilles tendon.

### ASICS Best Poster – Exercise and Sports Science

#### Instructor Chen-Yu Chen

The association between physical activity and visuo-spatial attentional performance in the elderly: An event-related potential study.

### ASICS Best Poster – Physical Activity and Health Promotion

#### Associate Professor Rochelle Eime

Population levels of sport participation: Implications for sport policy.

### ASICS Best Poster – Injury Prevention

#### Mrs Jodie Dakic

Musculoskeletal injury profile in professional Women's Tennis Association (WTA) players.

## AMSF FELLOWS

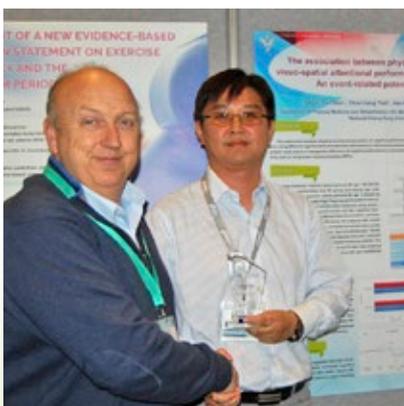
During the 2016 SMA Conference the ASMF Fellows enjoyed an entertaining evening at the ASMF Fellows Dinner, held in the National Sports Museum at the MCG.

A great night was had by all, with Australia's fantastic sporting history an amazing backdrop! Attendees were able to learn about some of our fantastic Olympic stories from MCG Tour Guide and ASMF Fellow Peter Dornan.

Congratulations to the following SMA member who was awarded Fellowship:

- Dr Christopher Bishop

Chris now joins an esteemed group of Professional members that have made a great contribution to SMA and the sports medicine industry.



# 2016 SPORTS MEDICINE AUSTRALIA CONFERENCE



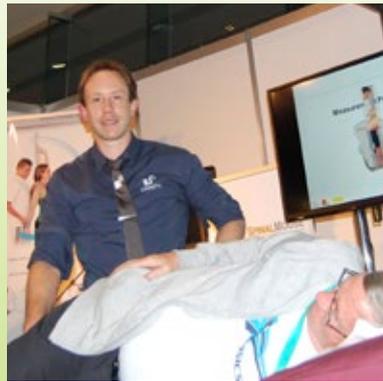
SPORTS MEDICINE AUSTRALIA SMAconf2016 Melbourne Cricket Ground (MCG)



pivotal\_motion #smaconfdinner #glam #MCG | End to a great sports medicine conference 2016



michellezechariah #smaconfdinner meeting great people





SPORTS MEDICINE AUSTRALIA SMAconf2016 Melbourne Cricket Ground (MCG)



erindwals The young crew kicking on strong!! #smaconfdinner @mcg1853



# BEST PRACTICE IN ASSESSING FOR CLINICAL EXERCISE



THE FOLLOWING IS A REPUBLISHED EDITORIAL WHICH FEATURES IN **THE JOURNAL OF SCIENCE AND MEDICINE IN SPORT** (VOLUME 19, ISSUE 11, NOVEMBER 2016) WRITTEN BY EDITOR-IN-CHIEF, GORDON S. WADDINGTON, PHD.

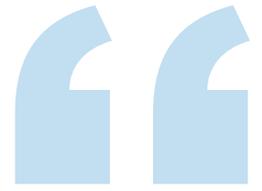
**B**ahl, Dollman and Davidson in this month's sport and exercise medicine section report on the results of a Delphi study examining the evidence defining the critical domains in subjective assessment that guide the clinical exercise physiologist's decision making. They suggest that twenty-three domains need to be addressed in a clinical assessment to ensure the delivery of safe exercise prescription. Mendis and Hides outline the results of a randomised intervention comparing motor control exercises for the hip musculature versus wait list control on muscle dimensions on MRI. Using ultrasound shear wave

elastography to assess Achilles tendon stiffness, Ying and colleagues described increased stiffness in frequent exercisers compared to infrequent exercisers. In an examination of exercise effects on cognitive performance Johnson and co-workers found that even light physical exercise is associated with better levels of executive function in the brain.

In the sports injury section, Light and Thorborg outline the relative precision of a range of hip adductor tests. Farrell and colleagues, when examining the hips of elite rugby players with MRI, found the incidence of pathology on players scans to be higher than non-players. However,

# CLIENTS

## EXERCISE SERVICES



*They describe a clear separation, in terms of health-related quality of life, of those individuals who reported significant screen time use versus those who participated more in class and sport and physical activities.*

the players symptom reporting levels did not necessarily relate to the imaging findings. Davis and Makdissi provide support for the use of video assessment in the determination of concussion diagnosis during play in Australian Football players. In the final article in this section for the month Schultz and co-workers question the utility of current screening tools in elite Olympic class sailors.

In this month's physical activity section Cadenas-Sanchez's group lead off with an evaluation of a tool for fitness testing in preschool age children. Sperandei, Vieira and Reis provide insight into the high levels of abandonment of gym programs, suggesting 63% of individuals do not complete twelve weeks. Belton's research group report on physical activity patterns in adolescents, suggesting weekend midday and early afternoon as time periods to target interventions. Gilson and colleagues, in a study of office workers, outline the impact of using computer prompts to enhance activity levels where the participants had engaged in developing their own strategies to "sit less and move more". Casey and co-workers report on the outcomes of a cross-sectional physical activity and lifestyle survey of regional and rural adolescent females. They describe a clear separation, in terms of health-related quality of life, of those individuals who reported significant screen time use versus those who participated more in class and sport and physical activities.

Adams and colleagues, in the first article in the sport and exercise science section, describe the effects of hand cooling and hydration on body temperature control in a hot environment. Schega's research team outline promising initial work in the role of normobaric hypoxia on enhancing cognitive in older adults. Chow and co-workers report reduced balance performance in amateur rugby players when compared to healthy active non-rugby playing individuals. In the final article this month Doma's group report on a possible mechanism to enhance rowing sprint starts by utilising dynamic conditioning contractions on a rowing ergometer during training.

The November 2016 issue of the *Journal of Science and Medicine in Sport* continues to provide the sport scientist and sport and exercise medicine practitioner with the evidence to support high quality clinical and research practice.

### ABOUT THE AUTHOR

**Gordon S. Waddington** is the Editor-in-Chief of *The Journal of Science and Medicine in Sport*.

The *Journal of Science and Medicine in Sport*, published by Sports Medicine Australia (SMA), is the major refereed research publication on sports science and medicine in Australia. The Journal provides high quality, original research papers to keep members and subscribers informed of developments in sports science and medicine. Produced for SMA six times a year by Elsevier Australia, it reflects SMA's commitment to encouraging world-class research within the industry, and its commitment to the continuing education of its members. Journal articles can be found at [jsams.org](http://jsams.org)

# SPORT AND EXERCISE MEDICINE IN ITALY

THIS ARTICLE, WRITTEN BY DR GIANPAOLO PALUMBO FORMS PART OF A SERIES PUBLISHED IN SPORT HEALTH TO LOOK AT THE STRENGTHS AND WEAKNESSES OF THE SPORT AND EXERCISE MEDICINE (SEM) SYSTEMS IN VARIOUS COUNTRIES, PROVIDING IDEAS AND INSPIRATION FOR ALL COUNTRIES ON HOW TO IMPROVE INFRASTRUCTURE IN THIS EMERGING SPECIALITY.

[VIEW PAST ARTICLES HERE](#)

[VIEW PAST SPORT AND EXERCISE MEDICINE AROUND THE WORLD EDITORIAL HERE](#)

**S**port medicine specialization schools are located all over Italy and students are admitted to these schools after passing the state exam and an open written competition. The competition takes place in the university that they have chosen.

The following will be evaluated:

- a) the written test result;
- b) the university curriculum, with attention paid to orthopaedics and cardiology exams;
- c) the dissertation marks of the second-degree course.

The course will last five years.

In Italy, there are 32 specialization schools (there will be 36 scholarships in all, but the winners of these scholarships will not be allowed to accept work in other institutions).

The specialization schools can be found in the following universities:

Bari, Brescia, Bologna, Cagliari, Catania, Catanzaro (Magna Græcia University), Chieti, Cosenza (University of Calabria), Firenze, Genova, L'Aquila, Messina, Milan (Niguarda & Bicocca), Napoli (Federico II-Sun), Padua, Palermo, Pavia, Perugia, Pisa, Reggio Calabria (Mediterranea

University of Reggio Calabria), Rome (La Sapienza, Tor Vergata and Catholic University of the Sacred Heart), Sassari, Siena, Turin, Trieste, Udine, Varese (University of Insubria), Verona.

All of them have the same target, that is the prevention and cure of sport diseases. Since the levels of physical activity have continued to drop in the western population, sport schools have implemented their studies of biomechanics involved in the motion activity.

Beside university facilities, many hospitals have organized special departments for sport medicine, where sport doctors, orthopaedist and physiotherapist work together. Here is the list of experienced sport departments.

Benevento, Bergamo, Bologna, Bussolengo, Bari, Firenze, Iglesias, L'Aquila, Messina, Monza, Naples (University of Naples Federico II), Noale, Rome (San Camillo, Sant'Andrea), San Pietro Vernotico, San Severo, Santorso, Sondalo, Verona.

Didactic regulation is composed of three basic activities: physiology, biochemistry and human anatomy, and 17 clinical



activities: pharmacology, clinical psychology, medical genetics, medical oncology, internal medicine, respiratory diseases, cardiovascular diseases, gastroenterology, endocrinology, nephrology, haematology, rheumatology, infection diseases, psychiatry, neurology, paediatrics and hygiene.

Moreover the regulation is made up of nine diagnostics activities (clinical biochemistry & clinical molecular microbiology, medical genetics, medical oncology, microbiology and clinical microbiology, pathological anatomy, diagnostic imaging & radiotherapy, neuroradiology and laboratory medicine), five emergency and first aid activities (internal medicine, general surgery, neurology, biomechanics and anaesthesiology), six specific disciplines (physiology, human anatomy, internal medicine, respiratory diseases, cardiovascular diseases and endocrinology), 10 electives disciplines (physiology, biochemistry, pharmacology, human anatomy, histology, medical genetics, computer sciences, general psychology, physical medicine &

rehabilitation and forensic medicine), four interdisciplinary activities (motor activities, sport activities, rheumatology and physical medicine and rehabilitation) and the legal medicine as integration of human sciences.

Before discussing the thesis of the fifth year, the linguistics, informatics and relationship skills are tested.

The students will earn 60 points each year, with credits given to the following:

- a) training;
- b) elective disciplines;
- c) final thesis.

The university credits were introduced by the E.C. in 1999 to value the competence level of the students.

For the first three years of the first degree, there are 120 credits, for the second-degree course (4th and 5th years) there are 180 credits, for the specialization (five years) there are 300 credits. Per the E.C.T.S (European Credit Transfer System) the credits will be valid even if the student moves from one university to another, both in Italy and in Europe.

*Beside university facilities, many hospitals have organized special departments for sport medicine, where sport doctors, orthopaedist and physiotherapist work together.*

# INTERVIEW WITH... GARY ZIMMERMAN

## SPORTS AND EXERCISE PHYSICIAN, WESTERN BULLDOGS FOOTBALL CLUB TEAM DOCTOR.

SPORT HEALTH INTERVIEWS  
SPORTS AND EXERCISE  
PHYSICIAN AND WESTERN  
BULLDOGS FOOTBALL  
CLUB TEAM DOCTOR, GARY  
ZIMMERMAN TO DISCUSS  
HIS CAREER IN SPORTS  
MEDICINE, WORKING IN  
MEN'S HEALTH, HIS ROLE AT  
THE WESTERN BULLDOGS  
AND THE INCREDIBLE 2016  
PREMIERSHIP WIN.

**Firstly, congratulations on an incredible 2016 season at the Western Bulldogs and being part of a premiership. Can you describe what the club was like throughout the finals run, firstly as a whole and maybe your own feelings?**

We obviously had a great year at the Doggies, but it's well documented, we had a pretty tough year too. The thrill of getting to the Grand Final was unbelievable and then to win the big dance was something that you will look back on as one of the highlights of your life. It was certainly a great thrill for all Western Bulldogs supporters & sponsors and the western suburbs community.

**The Bulldogs had several key injuries leading into September,**

**what was some of the planning involved to try and get the team in optimal condition for finals and on Grand Final Day?**

Leading into the Grand Final, we had a lot of injuries to key players. Easton Wood and Tom Liberatore's ankles, Jackson Macrae's hamstring and Dale Morris' fractures in his back and not to mention some injuries that weren't highlighted. We felt they needed that extra week to give them a chance to play, so the bye came at the right time.\* I think the fact that those five players came back, gave an enormous lift to the other players in the team. We were lucky enough that all those players got through the finals series and did very well. We took a calculated and informed risk, but it came off and the rest is history.

**How does your role change in season when you're on a premiership run, does it differ to say 2015 where you were eliminated from the finals or a season where you miss the finals altogether?**

Obviously, there's more at stake, it's do or die, but it's still business as usual, there's nothing special. Each week's the same, whether it's a home and away game or whether it's a finals game, it has to be the same recipe every week. We have the same systems in place. I think all the staff were terrific in the way they performed their role in looking after the players and just doing their normal jobs. That that was the same through the whole finals series.

**Let's rewind to the start. Tell us about what led you to become a Sports and Exercise physician?**

I always loved the thought of doing sports medicine, either as a doctor or a physio. My father was one of the original sports medicine GP's in Victoria and was one of the original doctors with the Australian Sports Medicine Federation (ASMF). Dad was heavily involved with ASMF, the Essendon Football Club and the Olympic Federation.

I was lucky enough to be able to get into medicine and then begin my medical career. I started work in the Malvern Sports Medicine Centre, which was the original sports medicine centre in Melbourne and started my football career at Essendon in 1981. I love sport and I love my medicine and I made a decision early on in my career to go down that pathway.

**Outside of working with the Western Bulldogs, what other sports have you been involved in throughout your career?**

I'm the medical consultant for Racing Victoria, I look after all the jockeys, they come under my banner. I'm involved in overseeing their injury management. I've also been one of the senior sports physicians at the Australian Open tennis for the last 18 years, this will be my 19th year next January.

**Can you describe the contrast between working at your own private practice on “regular” patients and with elite athletes?**

We treat everyone the same, who comes to your sports medicine practice, whether I'm looking after an elite level tennis player or footballer or a jockey.

**How has your profession changed since you entered the industry as a sports doctor in the 1980's?**

Sports medicine has grown a lot. There's a lot of people getting involved with it and more research being done in the area. We're living in a more politically correct society these days and sports medicine's no different. Sometimes in elite level sport you've got Big Brother watching over you. I think elite sport has become more professional. There is a lot more compliance & risk policies and regulations.

**The topic of this edition of Sport Health is men's health, what are some of the unique parts and challenges of treating men compared to treating women?**

Men tend to “put things under the carpet”, they tend to ignore their health more than women. They don't tend to be as good in following directions and as a doctor you have to be pretty clear in your advice. Although, I think there has been a lot of emphasis on men trying to take more responsibility and going and seeing their general practitioner (GP) on a more regular basis, including annual check-ups.

**A common stereotype is men don't like addressing their health issues, is this fair?**

Men have tended to bury their heads in the sand and women tend to be more proactive in doing something about their health. But I think we are getting better, it is improving. There's been a great push in men's health, the November campaign, the R U OK? Day for mental health awareness. All these awareness campaigns are really critical for trying to help people get onto things earlier. The Western Bulldogs also run an excellent Sons of the West health promotion program for men.

**How important is addressing health issues at the Western Bulldogs?**

Overall, the players are very well looked after. We have two doctors at the club, myself and Jake Landsberger and our club psychologist Lisa Stevens, who is excellent. You've got so many different personalities that make up a club, some people may not be as forthcoming. Sometimes you might hear something from another player, who might say “can you go and talk to so and so”, their mates are looking after them.

We do regular wellness charting, The players have to chart their wellness every day, so if there's something coming up on their wellness chart, for example they're not sleeping well, they're showing some anxiety, that is followed up. We can then pick something up before it becomes an issue.

**How do you achieve work/life balance and a balance between working at an AFL club and having your own practice?**

Like a lot of people in the profession, I'm probably not as good at balancing

work and recreational & family time. I think a lot of doctors of my era probably find that, we're from an old-fashioned era where we all work pretty hard. Football doctoring has become a more demanding job, almost 52-weeks a year. But, for me, football also offers some relaxation. I go to the football with my good mate Jake Landsberger. We have a good laugh and at the end of the day most people work hard but it has to be enjoyable, which football is.

**So, how do the Bulldogs top 2016 next season?**

I'm sure Bevo (Luke Beveridge) will be right on top of that, no football hangovers. I think the Bulldogs is a terrific club to be around and the players & staff are all pretty level headed. I'm sure they'll have their strategies of how to deal with the players going forward. The future looks bright, but you never want to get ahead of yourself. I hope that if we go about our business as we did in 2016 and everyone does their job to the best of their ability, hopefully success will follow in 2017.

*\*The AFL introduced a pre-finals bye across the league for the 2016 season.*



Gary with fellow Bulldogs club doctor Jake Landsberger holding the 2016 AFL Premiership Cup.

**FAVOURITES**

**Athlete:** Serena Williams

**Travel destination:** Italy (Tuscany), Greece

**Sport to watch:** AFL/cycling

**Cuisine:** Japanese

**Movie:** *The Da Vinci Code*

**TV program:** Get Smart

**Band/Musician:** The Beatles

**Book:** *The Power of One*

**Gadget:** Mobile phone

# AN ACTION PLAN FOR TACKLING PROSTATE CANCER



PROF. CRAIG ALLINGHAM EXPLAINS HOW THE DEATH OF HIS FATHER TO PROSTATE CANCER PROMPTED A CHANGE IN RESEARCH TO HELP PREVENT FUTURE PROSTATE CANCER DEATHS.

**T**wo huge events occurred in my life in the year 2000. One was the Sydney Olympics for which I had been working alongside the Sydney Organising Committee for the Olympic Games (SOCOG) to devise the physiotherapy volunteer coverage and then serving as an Australian team member. Despite the size of this event it was dwarfed by the impact of my Dad dying from metastatic prostate cancer a couple of months beforehand. Dads don't die. Dads are invincible.

His five years between diagnosis and death were tough for him and those around him. He was a very accomplished

man in many fields but negotiating the medical system wasn't one of them. He had never needed to. During his demise, I wondered why my professional skills were so inadequate in helping him to cope better, to improve his physical function and maintain his strengths. I could assist an elite thrower to pitch that bit faster or to recover more quickly but I was powerless to help my own Dad.

Fast forward a few years during which I revisited some earlier studies in men's health, hooked up with the Prostate Cancer Foundation as an ambassador and transferred my elite sports rehab skills from hamstrings and shoulder

ER



# AN ACTION PLAN FOR TACKLING PROSTATE CANCER



*Some blokes have no problem finding and using these muscles, but many can't get the hang of it and need help to find, exercise and train their floor muscles effectively to improve their survivorship.*

muscles to sphincters and urethras, I wrote a book for blokes who were recovering from prostate cancer treatment, *Prostate Recovery MAP – Men's Action Plan*.

The prostate gland is not a vital organ (apart from reproduction), and any bloke can survive without it or with a cancerous one provided no cancer cells escape from the prostate and lodge elsewhere (metastasize). So, removing the prostate is often the best course of treatment for men with fast growing prostate tumours. It may well save their life but comes with some costs, namely loss of bladder control and loss of erectile function. These costs don't seem so big before the cancer is removed, but once survival is assured they become a significant quality of life issue.

Now for the surprise – men have pelvic floors too! And once the muscles within the prostate gland are removed during surgery the male pelvic floor muscles

become the go-to back-up system for regaining continence. Some blokes have no problem finding and using these muscles, but many can't get the hang of it and need help to find, exercise and train their floor muscles effectively to improve their survivorship.

An increasing number of physiotherapists are working in this area, and we are training more every year in our '*Mastering the Martians*' program. If you know of blokes in this situation whether they be patients, clients or mates here are your options:

- Do nothing
- Listen, and suggest they consult a men's health or continence physiotherapist
- Listen and recommend they purchase "*Prostate Recovery MAP – Men's Action Plan*", preferably before treatment begins and start their program while everything is intact.
- Both B & C





The Men's Action Plan is based on research and my clinical experience with treating hundreds of men. Specificity of training for the slow and fast twitch fibres in the male pelvic floor muscles are key to firstly develop endurance and holding capacity (reducing gradual bladder leakage) and then to develop fast recruitment skills to prevent leaking on efforts such as coughing, lifting, rolling over, sit ups, etc. Alongside the exercise program comes advice on hydration, bladder training, lifestyle modification (no smoking, reduce abdominal girth, eat more vegetables) and for those who aspire to greater activity there is masterclass level where pelvic floor control is tested while performing challenging exercises such as plank, squats, get-ups and curls.

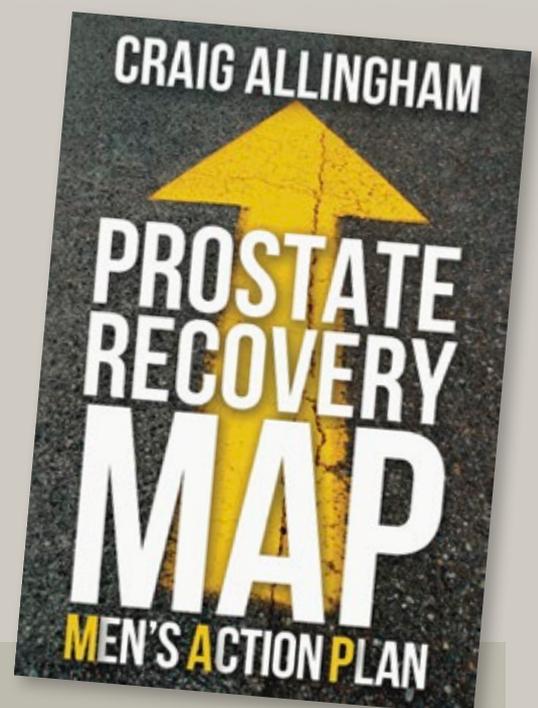
Not all guys will regain full continence and many won't regain erectile function, even if they follow the Men's Action Plan to the letter. However, they will get stronger, fitter, leaner, more confident and healthier

even if they still wear incontinence pads. Or as I challenge them, 'Do you want to remain fat, lazy, weak and incontinent or would you prefer to be just incontinent?' OK, I might put it a little more tactfully but the message is the same.

I wasn't ready to help my Dad, but I hope to help other blokes' Dads, uncles, brothers and sons. You can too.

#### ABOUT THE AUTHOR

**A/Prof. Craig Allingham** is a Men's Health Physiotherapist who now focuses on prostate cancer. His book *Prostate Recovery MAP – Men's Action Plan* was published in 2013 and can be purchased at [www.prostaterecoverymap.com](http://www.prostaterecoverymap.com).



# INTRODUCTION: THE DENIAL OF EVIDENCE- BASED MEDICINE

JOHN ORCHARD INTRODUCES HIS FEATURE ARTICLE ON KNEE OSTEOARTHROSIS BY QUESTIONING THE SELECTION CRITERIA OF PEER REVIEWED LITERATURE.

**H**ealth professionals should be encouraged not to live in a bubble and ignore the bigger issues of the outside world. Generally, we don't. Many health professionals have progressive views, because we are taught to respect science and science is a progressive discipline. Health professionals will tend to – rightfully – believe, for example, that climate change is a real phenomenon and trust the scientific community ahead of the political community on this issue.

However, within medicine many of us have a scientific blind spot. We ideally should provide health care according to “evidence-based” principles. Yet we can sometimes practice according to what we were taught, out of habit, requests from patients, bias and even out of financial

interest. When the divergence is pointed out, sadly doctors and health professionals can be as bad as anyone else at refusing to accept scientific evidence if it conflicts with strongly-held beliefs.

I would like to present the following paper in *Sport Health* as a “non-peer-reviewed” publication, along with co-authors Jessica Orchard and David Samra<sup>1</sup>. We tried over a two-year period to get this published in the peer-reviewed literature but after writing about a dozen versions and repeatedly being asked to revise and then getting multiple rejections for publication we have given up trying to get it published under the peer-review system. You can judge for yourself, but we believe that this paper presents a very simple message that too many peer-reviewers don't want to hear.

Our paper examines Medicare funding for knee osteoarthritis (OA) treatments. Medicare funds certain treatments which are not supported by evidence-based medicine (chiefly knee arthroscopy, which has been rejected as an OA treatment by every systematic review on the topic) and disqualifies from benefits certain treatments which actually have systematic review support, based on multiple randomised controlled trials (RCTs).

This latest rejection of our paper came from the journal *Australian Health Review*. After 12 months, this journal had gathered three reviewers for our paper. One of them thought our paper was outstanding and recommended publication without any edits. A second reviewer though could not accept the part of the paper illustrating that knee arthroscopy was a funded but not evidence-based treatment for knee OA (but this reviewer thought the arguments on other treatments were sound). This reviewer did not accept that systematic review evidence on knee arthroscopy had any relevance to Medicare rebates for knee arthroscopy because of the view of the reviewer that “knee arthroscopy does not get used for knee OA in Australia”. A third reviewer thought the arguments on knee arthroscopy were very sound, but could not accept that the systematic review evidence in favour of hyaluronan gel or platelet rich plasma (PRP) injections for knee OA had any relevance to these treatments being disqualified from Medicare. The editors felt obliged to reject the paper because two authors gave it the thumbs down.

It is notable that at approximately the same time that the editors of *Australian Health Review* were rejecting our paper, they were accepting a paper which detailed the process by which PRP injections for knee OA became disqualified from Medicare (2). This paper is worth reading and, perhaps for this reason it was worth publishing. It is notable in the methods it was stated that a systematic review of evidence was not

required or done as part of the Medicare review process. Whereas our paper – on the same topic – uses a search strategy to uncover Systematic Review conclusions and Assessing the Methodological Quality of Systematic Reviews (AMSTAR) quality ratings of the systematic reviews, the Mundy paper<sup>2</sup> is an old-school narrative review. There is no search strategy or attempt to comprehensively assess the literature on the topic or set a criteria for Medicare funding. Many people may agree with the conclusion of the published Mundy paper, but I'd defy anyone to rate it as a scientifically more sound publication than our (rejected) one on a very similar topic.

There are a lot of problems with the peer-review system, but perhaps the greatest one is that the reviews themselves are subjective. A reviewer is ultimately *not* required to objectively rate the scientific method of the submission – just to make a decision on whether the paper should be accepted or rejected. Sadly, journals ask leading questions of reviewers which don't actually tend to promote good scientific method, like “is this paper likely to be of interest to our readers?” and “is this paper likely to be cited by following authors?”. Better questions would be “If there is a guideline for quality for this sort of study, what score does this paper achieve in meeting the guideline criteria?”.

The peer-review system should be in place to insist on a minimum level of scientific rigour, rather than be like a reality TV show where researchers in an area get to vote other researchers “off the island” because they don't agree with their conclusions. Sadly, the metrics of the peer-review system tend to prioritise popular publications rather than methodologically-sound ones.

In 2002 (yes, that is 14 years ago) I wrote an editorial in the *Journal of Science and Medicine in Sport* (JSAMS) entitled “Health insurance rebates in sports medicine should consider scientific evidence”. It was in response to the

first RCT of knee arthroscopy versus sham surgery for knee OA<sup>4</sup> and the main argument was “why do arthroscopic washouts for knee OA get funded under Medicare when there is an RCT now proving that they don't work?” Sadly, this was a good question in 2002 and is an even better question in 2016. However, there is great resistance amongst the medical community to the concept of basing health insurance rebates on scientific evidence. Even though there was evidence in 2002 to suggest that knee arthroscopy rebates should be restricted, 14 years later no progress has been made on this issue. Instead, Medicare Benefits Schedule (MBS) rebates have been removed for two rival treatments that have a much more favourable evidence-base.

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# REBATES FOR MINIMALLY-INVASIVE TREATMENTS FOR KNEE OSTEOARTHRITIS UNDER REVIEW ARE NOT EVEN

JOHN ORCHARD, JESSICA ORCHARD AND DAVID SAMRA PRESENT A STUDY THEY UNDERTOOK LOOKING AT THE VALIDITY OF TREATMENTS FOR KNEE OSTEOARTHRITIS.

Knee osteoarthritis (OA) is one of the most common chronic morbidities in Australia and the world. Arthritis is one of Australia's National Health Priority areas with the knee the most affected joint. There is currently no known treatment that is capable of reversing OA. At end stage, knee OA is treated by Total Knee Replacement (TKR) surgery with 50,000 of these procedures performed annually in Australia. TKR is a successful procedure in the majority of patients<sup>2,3</sup> but associated with significant morbidity if complications arise such as prosthesis loosening, infection or cardiovascular issues. Because of the open-incision and complication rate, TKR belongs in the realm of "invasive procedures". These are differentiated from "minimally-invasive procedures" which involve a breach of the skin (or entry into a body cavity) but one so small that closure with sutures is generally not required<sup>4,5</sup>.

Traditionally, one of the minimally-invasive procedures available for knee OA has been knee arthroscopy<sup>6,7</sup>. Recently there have been numerous evidence-based reviews finding that arthroscopy is not an effective treatment for knee OA nor an efficient use of health resources<sup>2,8-11</sup> although it is still available as a procedure on the MBS for this indication.

# MINIMALLY INVASIVE TREATMENTS IN KNEE AUSTRALIA'S MEDICARE SYSTEM EVIDENCE-BASED

Around the time of Australia's Federal Budget in 2015, Health Minister Sussan Ley announced health system reforms, including establishing a Medicare Benefits Schedule (MBS) Review Taskforce. The media release associated stated the Taskforce will "...consider how the (5500) MBS services can be aligned with contemporary clinical evidence and improve health outcomes for patients" with a consultation process currently open. Our study aims to assess the high-quality systematic review (SR) evidence for various procedures and treatments for knee OA that are cited by the MBS<sup>12</sup>. There are some procedures which have been disqualified by the MBS, meaning that not only is there no rebate for the procedure, but that these procedures are not permitted to be performed in an MBS consultation. An example of an MBS-disqualified treatment for a different condition is vertebroplasty<sup>12</sup>, which has been assessed by high-quality SR as having no benefit over less invasive treatments<sup>13</sup>. We hypothesised that disqualified treatments for knee OA should fall into this category (i.e. more likely to be harmful than helpful) to justify the disqualification.

The primary outcome of this review is to assess whether Australia's MBS offers rebates for minimally-invasive procedures associated with knee OA that are consistent with high-quality evidence obtained from SRs.

## METHODS

### AUDITING OF MEDICAL BENEFITS RELATED TO JOINT-SPARING TREATMENT OF KNEE OA

The MBS version of April 2015<sup>12</sup> was searched for item numbers and restrictions on treatments that may relate to the minimally-invasive treatment of generalised knee OA. This was to reveal treatments that were considered "minimally-invasive procedures"<sup>14</sup> (needling, injections and minimally-invasive surgeries<sup>5</sup>) rather than more invasive surgeries (e.g. joint replacement, tibial osteotomy) or non-interventional management (e.g. exercise programs).

The procedures which were listed were categorised as follows:

1. "Rebated": the procedure has a specific MBS item number that grants the patient a *procedure rebate*.
2. "Disqualified": the MBS have no specific item number for this procedure and technical notes are made to state that this procedure is not permitted to be performed for knee OA during an MBS consultation.

Procedures and treatments for knee OA not referenced in the April 2015 MBS were not considered as part of the study.

### ASSESSMENT OF HIGH QUALITY EVIDENCE-BASE FOR MBS-CITED PROCEDURES

Once the MBS search had been completed for references to possible knee OA treatments, the Pubmed, Embase and Cochrane review databases were searched. The strategy followed an algorithm searching for all of (1) the intervention (relevant keywords/MeSH terms); (2) knee osteoarthritis; and (3) a high-quality review indicator (meta-analysis or systematic review).

When the initial title and abstract search for each treatment had been made, papers were excluded based on the abstract if the paper was not actually a systematic review/meta-analysis of such studies. We also restricted the reviews to being relevant to an MBS-cited procedure, being published in 2005 or later, being published in English and having an AMSTAR<sup>14</sup> quality rating of at least 8 out of 11.

For MBS-rebated and disqualified procedures, we searched for high-quality systematic review evidence (of level I and II studies) that the treatment was effective for knee OA. The null hypothesis for MBS-rebated procedures was high-quality SR evidence that they were effective. The null hypothesis for MBS-disqualified procedures was high-quality SR evidence that they were harmful or clearly ineffective.

# REBATES FOR MINIMALLY-INVASIVE TREATMENTS IN KNEE OSTEOARTHRITIS UNDER AUSTRALIA'S MEDICARE SYSTEM ARE NOT EVIDENCE-BASED

## RESULTS

Table 1 shows that the 2015 MBS<sup>12</sup> references two rebated minimally-invasive procedures and two potential minimally-invasive knee OA treatments that are not permitted to be performed during an MBS consultation (i.e. disqualified, p. 35). Minimally-invasive treatments that could be used under MBS (and/or funded by consultation or

guided-injection rebates) but were not assessed further as part of this study are also listed in Table 1 along with the reason for not being included in this study. There was high quality systematic review evidence (revealed on searches initially performed on July 5, 2015 but updated in 2016) available to assess the two rebated and two disqualified procedures, the results of which are summarised in Figure 1.

## REBATED PROCEDURES: ASSESSMENT OF EVIDENCE TO SUPPORT GRANTING OF REBATE FOR KNEE OA

### KNEE ARTHROSCOPY FOR KNEE OA: NO HIGH-QUALITY SUPPORTING EVIDENCE

We assessed a recent (2015) systematic review<sup>15</sup> as also having highest AMSTAR quality rating. It makes recommendations consistent with the most recent Cochrane update<sup>16</sup>: that knee arthroscopy is an ineffective treatment for knee osteoarthritis and cannot be supported. We could not find a high-quality systematic review that supported knee arthroscopy for knee OA, as the published primary RCTs have not found knee arthroscopy to improve results over less invasive comparators, including sham surgery. The latest recommendation<sup>15</sup> also discourages arthroscopic meniscectomy for degenerative meniscal tear in the background of knee OA, based on recent RCTs that included meniscectomy<sup>17,18</sup>. The risks associated with arthroscopic procedures (e.g. post-operative infection, DVT) clearly outweigh the benefits if there is no beneficial effect beyond usual conservative treatment. Recently (mid 2016) a further RCT showing ineffectiveness of knee arthroscopy for degenerative meniscal tear has been published<sup>19</sup>.

### ACUPUNCTURE FOR KNEE OA: MINIMAL HIGH-QUALITY SUPPORTING EVIDENCE

There have been RCTs which show improvements in chronic knee pain associated with OA from acupuncture compared to a sham procedure, but the effect size is small and of borderline clinical significance. The highest-quality SR we assessed was a Cochrane review from 2010<sup>20</sup> which concluded “sham-controlled trials show statistically-significant benefits; however, these benefits are small, do not meet our pre-defined thresholds for clinical

Service category	Item number(s)	Notes
<b>REBATED PROCEDURES</b>		
Knee Arthroscopy (without external grafting), including lavage, debridement and meniscectomy	49557, 49558, 49559, 49560, 49561, 49562	Arthroscopy (various item numbers) can be used both to treat knee conditions associated with knee OA and also, conditions not associated with OA. There are no technical notes in the MBS to formally disqualify these treatments if used for uncomplicated knee OA
Acupuncture	173, 193, 195, 197, 199	Acupuncture is a non-specific item but can be used by eligible GPs to treat knee OA
<b>DISQUALIFIED PROCEDURES (Not permitted to be performed during an MBS consultation)</b>		
Autologous platelet rich plasma (PRP) injection	Nil	Excluded as per: “No MBS item applies to a service mentioned in the item if the service is provided to a patient at the same time, or in connection with, an injection of blood or a blood product that is autologous” (p 35)
Hyaluronan gel injection	Nil	Excluded as per: G.13.1 note (p 35): “An item in the range 1 to 10943 does not apply to the service described in that item if the service is provided at the same time as, or in connection with, any of the services specified below: 6. Intro-articular [sic] viscosupplementation, for the treatment of osteoarthritis of the knee.”
<b>RELATED PROCEDURES BUT NOT CONSIDERED BY THIS STUDY</b>		
Autologous Chondral Grafting	49563	Used only for management of focal chondral defects, considered a precursor to OA, rather than for established OA
Corticosteroid injection	Nil	This is a common knee OA treatment but is not referenced in MBS (neither rebated nor disqualified)
Stem cell procedure	Nil	This is an emerging knee OA treatment but is not referenced in MBS (neither rebated nor disqualified)

Table 1 – Minimally-invasive procedures for analysis in this study (cited in MBS 2015)

relevance, and are probably due at least partially to placebo effects from incomplete blinding". Since 2010, there has been a major RCT published in JAMA in 2014 which also showed some mild benefits of acupuncture compared to sham treatment but of low effect size and short duration<sup>21</sup>. The authors of this study also concluded that acupuncture probably did not confer benefit over placebo.

**DISQUALIFIED PROCEDURES: ASSESSMENT OF EVIDENCE TO SUPPORT DISQUALIFICATION UNDER MBS**

**HYALURONAN INJECTION FOR KNEE OA: NO EVIDENCE OF HARM OR PROVEN INEFFECTIVENESS**

The most widely-studied treatment for knee OA is hyaluronan gel viscosupplementation injections (e.g. Synvisc, Durolane, the brand names available in Australia). Systematic review conclusions have varied and a recent quality analysis of systematic reviews attempts to draw conclusion from the different attempts at meta-analysis<sup>22</sup>. This quality analysis rates the highest-

level SR (AMSTAR 11/11) the Cochrane review from 2006<sup>23</sup>. This was based on 76 trials concluded that "viscosupplementation is an effective treatment for OA of the knee with beneficial effects: on pain, function and patient global assessment; and at different post injection periods but especially at the 5 to 13-week post injection period.<sup>23"</sup> The next highest (AMSTAR 10/11) and more recent (2012) SR concluded, however, that based on eliminating lower-quality RCTs from the analysis, that the benefits of hyaluronan over saline injection are small and whilst statistically-significant, possibly are clinically insignificant<sup>24</sup>. The most recent (2015) SR that met our minimum quality standard (AMSTAR 8/11) found improvements in knee pain and function with hyaluronan over placebo<sup>25</sup>.

A meta-review of multiple treatment options for knee OA show that the vast majority of treatments studied with RCTs (included hyaluronan) generally exhibit a similar bias: that larger, higher quality trials show less effect than smaller, lower-quality trials<sup>25</sup>.

We conclude that further in-depth analysis would be required to assess

whether there is enough evidence - including cost-effectiveness - to justify a specific MBS rebate for hyaluronan injections for knee OA. However, there is very strong evidence to conclude that hyaluronan has not been proven to be ineffective or harmful in knee OA and therefore MBS disqualification is not justified based on SR evidence.

**PLATELET-RICH-PLASMA (PRP) INJECTION FOR KNEE OA: NO EVIDENCE OF HARM OR PROVEN INEFFECTIVENESS**

A PRP injection requires blood being drawn from the patient and centrifuged to concentrate a platelet rich fraction, which is then drawn up and injected into the same patient at the site of injury. There have been at least six RCTs published to date<sup>27</sup>, generally reporting a beneficial effect of PRP for knee OA compared to index injection of placebo or hyaluronan. However, study quality of these RCTs is generally low with the major bias issue being blinding so that strong conclusions of efficacy cannot yet be made. We agree with the findings of the highest quality SR recently published<sup>27</sup>, that in studies to date, PRP injections reduced pain more effectively than did placebo or hyaluronan injections in OA of the knee, but with a limited level of evidence due to a high risk of bias. A Cochrane review on PRP for knee OA has not been published to date.

A recent study has been published outlining the process by which PRP injections were disqualified from the MBS<sup>28</sup>. A systematic review was not performed and none of the published systematic review evidence, including the highest quality SR<sup>27</sup> was taken into account when making the decision to disqualify PRP<sup>28</sup>.

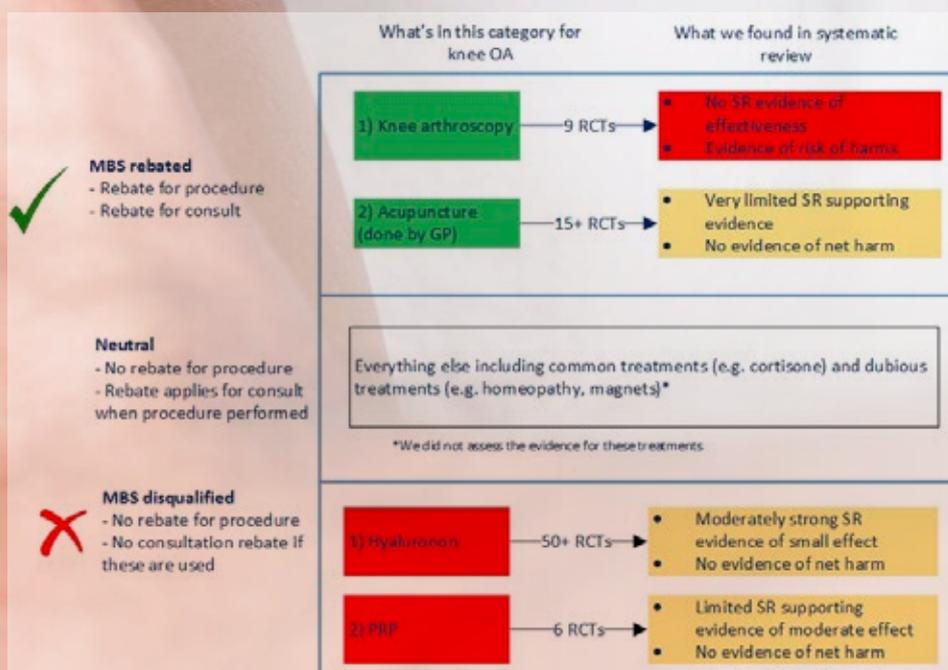


Figure 1

# REBATES FOR MINIMALLY-INVASIVE TREATMENTS IN KNEE OSTEOARTHRITIS UNDER AUSTRALIA'S MEDICARE SYSTEM ARE NOT EVIDENCE-BASED

## DISCUSSION

Systematic review evidence of minimally-invasive procedures for treatment of knee OA reveals generally disappointing results, with no treatment standing out as having clear evidence of strong effectiveness in high-quality SRs. However, on specific analysis of MBS status for the four treatments reviewed, we found very little support for benefit of the two rebated treatments and no evidence of net harm for the two disqualified treatments.

There is a universal recommendation of SRs that knee arthroscopy is an ineffective treatment for degenerative knee pathologies including knee OA. There is only minimal evidence of effectiveness for acupuncture in knee OA, which is also a rebated procedure. It is hard to reach a firm conclusion about whether hyaluronan and PRP are effective treatments for knee OA, for slightly differing reasons. The evidence base for PRP is a small number of RCTs, generally showing beneficial results compared to comparison injection, but of questionable quality. It is wise to reserve judgment about the effectiveness of PRP until higher quality RCTs have been published.

There is a more complete evidence base regarding hyaluronan. The conclusion of moderately-strong effect when all pooled RCTs are assessed<sup>29</sup> dilutes to a smaller effect when only the highest quality RCTs are included<sup>24,25</sup>. Although we have not performed cost-effectiveness analysis to justify hyaluronan or PRP injections warranting procedure rebates for knee OA, we could not find any evidence to justify these treatments having associated consultation rebates banned from MBS. Our hypothesis was that there should be strong evidence of either ineffectiveness or harm for any procedure that had been disqualified, which is not supported. An effect of disqualifying treatments from the MBS that may have a benefit (albeit small) over placebo, might be that patients are then offered alternate treatments that have more potential for systemic harm, such as opiate pain relief or NSAIDs<sup>30,31</sup>. Further illustration that the MBS treatment of hyaluronan is incongruent with the evidence-base is that the MBS *only* disqualifies hyaluronan injections for knee OA but does not disqualify them for use in other joints, such as the hip. This is the complete opposite of the US FDA and Australian Therapeutic Goods Association (TGA), which approve hyaluronan injections *only* for knee

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Regulatory body	MBS	Australian Therapeutic Goods Administration (TGA)	USA Food and Drug Administration (FDA)	Australian NHMRC/RACGP evidence-base guideline
Hyaluronan injections for knee osteoarthritis	Not permitted to be performed during an MBS consultation	Approved	Approved	Recommended treatment showing benefit
Hyaluronan injections for other joints (eg hip osteoarthritis)	Permitted to be performed during an MBS consultation	Not approved	Not approved	Not recommended treatment as no benefit shown

Table 2 – Incongruence of MBS stance on hyaluronan injections with other Australian and international regulatory bodies.

OA (and does *not* approve them for *other* joints, based on lack of safety and efficacy data). An Australian NHMRC/RACGP evidence-based guideline made Grade C recommendations that hyaluronan is of some benefit for knee OA but is of no benefit for hip OA<sup>32</sup>, also the complete opposite of the MBS. These incongruences are summarised in Table 2.

Further to systematic reviews of efficacy, there is also evidence to suggest that hyaluronan injections are associated with slower progression to total knee replacement<sup>33</sup> whereas there is evidence that knee arthroscopy is associated with more rapid progression to total knee replacement<sup>34</sup>. The awarding of a rebate for a treatment that is associated with more rapid progression to total knee replacement is incongruous with the disqualification of a treatment that is associated with a slower progression to total knee replacement.

### CONCLUSION

This study concludes that the current MBS is incongruent with the scientific evidence-base for management of moderate knee OA for minimally-invasive procedures. The establishment of the MBS Review Taskforce is welcomed, particularly if it has enough scope to thoroughly review the entire MBS<sup>10</sup>. This would help to provide value for money and the best evidence-based care in Australia's health system.



*Systematic review evidence of minimally-invasive procedures for treatment of knee OA reveals generally disappointing results, with no treatment standing out as having clear evidence of strong effectiveness in high-quality SRs.*

### ABOUT THE AUTHOR

**John Orchard** and **Jessica Orchard** are from the School of Public Health at The University of Sydney.  
**David Samra** is a Medical Doctor who is currently a Senior Registrar of the Australasian College of Sports Physicians.

### CONFLICT OF INTEREST STATEMENT

Jess Orchard and David Samra are sport and exercise medicine clinicians who are able to charge patients for treatment of knee osteoarthritis. However, there are no other financial conflicts of interests.

# INJUR



# IES TO MALE EXTERNAL GENITALIA

*SPORT HEALTH PROVIDES SPORTS TRAINERS WITH A GUIDE ON INJURIES TO MALE EXTERNAL GENITALIA INCLUDING ITS SYMPTOMS AND MANAGEMENT.*

The testes are very soft tissue and are liable to damage. The testes are contained in a very tough fibrous coat lying within the skin of the scrotum to protect them as they lie outside the abdominal wall. A blow to the testes, which may occur in a variety of sports, is at first very painful and can cause the following signs and symptoms in an athlete.

## SIGNS OF INJURY TO MALE GENITALIA

- Nausea
- Slow pulse
- Fainting or near fainting

## SYMPTOMS OF INJURY TO MALE GENITALIA

- Testicular pain
- Central abdominal pain

Usually these symptoms slowly settle and there is no cause for concern. However, as this is a soft tissue injury, the affected tissue may swell. Swelling may cause further compression of testicular tissue and increase pain. In some cases, more serious injuries can also occur, including rotation of the testes within the scrotum.

## MANAGEMENT OF INJURY TO GENITALIA

- Rest the athlete with some discretion if in public view.
- **RICER** and **NO HARM** – please note that ice should be used carefully in this situation, as it may be more painful than the actual injury. Instead, advise the athlete to cool the area using a cold compress or a wet towel.

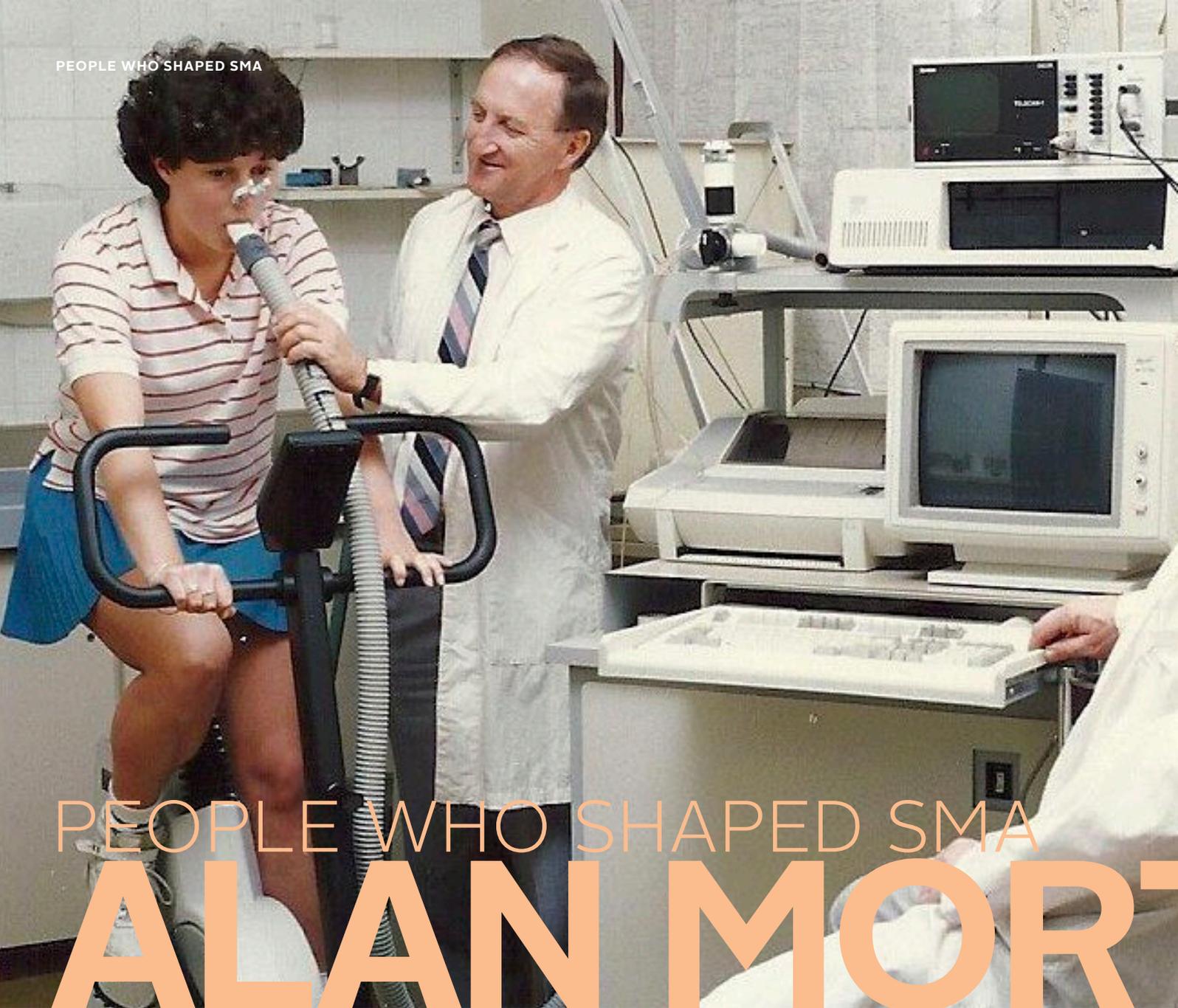
If the pain does not settle or if it increases over the hour or so, the athlete should be referred for medical assessment. If the pressure continues to increase, there is a threat to the ongoing viability of the testes and an operation may be required, although this is unusual. If an operation is required, it usually needs to be performed within four hours of the incident if testicular function is to be preserved.

**Want to learn more on injury prevention and management? Sports Medicine Australia runs a range of courses. For the complete calendar of courses, visit [sma.org.au](http://sma.org.au).**

## ACRONYMS

**RICER** – Rest  
Ice  
Compression  
Elevation  
Referral

**NO HARM** – No Heat  
No Alcohol  
No Running/Exercise  
No Massage



# PEOPLE WHO SHAPED SMA ALAN MORRIS

I have always been very interested in exercise sport and health and upon leaving high school I was awarded a scholarship to study physical education at Sydney Teachers College, completing my Diploma of PE in 1955. In 1957 I was selected in the Australian Rugby Union Team (The Wallabies), for its seven-month world tour and while in Canada and the USA I was made aware of graduate degree programmes in exercise science and physical education which were not available in Australia at that time.

I subsequently applied for a scholarship and was accepted to study at the University of Oregon, where I completed my Bachelor of Science (BSc), Master of Science (MSc), and Doctor of Education (Ed.D.) in the physiological basis of exercise, sport and health. In these studies, I concentrated on Anatomy, Physiology, Exercise Physiology,

Corrective physical education, care & prevention of athletic injuries, research methods and statistics.

After completing my doctorate, I taught for two years at The University of Victoria in Canada. While in Canada I joined the American College of Sports Medicine and was made a Fellow (FACSM) in 1971 and I am currently an Emeritus Fellow.

I first joined the Australian Sports Medicine Federation (precursor to SMA) in 1963 and provided my first sports medicine presentation, along with Dr Brian Corrigan, to the Australian Soccer Inaugural Coaching Symposium in 1965.

In 1968 I was appointed to The University of Western Australia and thus have been a member of the W.A. Branch of Sports Medicine Australia (SMA) since that date. During my membership, I have been

heavily involved in both the Western Australian branch of SMA and the National Body.

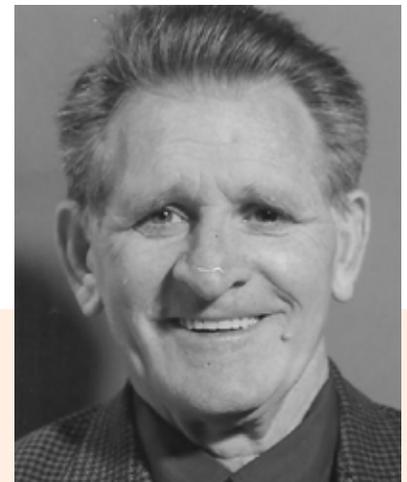
I was appointed WA President in 1978 and held the title until 1980. I also had several stints as WA Vice President, firstly in 1974-75 and later in 1981, 1982, 1983 and 1985.

As part of the National Body, I've held several positions and have been lucky enough to represent SMA at events all over the world.

I first became a member of the National Council in 1970 and spent a total of five-years throughout the 1970's as part of the National Council. I was awarded the Foundation Fellowship of the Australian Sports Medicine Federation in 1984, and in 1988, I presented at the American College of Sports Medicine Scientific Meeting in Dallas, Texas.



## A MOMENT WITH ALAN



### What was your career highlight?

The highlight of my career was being fortunate enough to collaborate with Professor Ken Fitch to conduct research on “exercise and asthma” over a 30-year period. I think that working with Ken allowed our Department to become well accepted by the Western Australian medical fraternity and allowed many of our staff and subsequently our students to gain research connections with other medical specialists in areas such as Cardiology, microbiology, bone density, diabetes, child growth & development, and respiration. As a result of these research opportunities many of our former students hold responsible positions in other universities, medical research units, and as scientific advisors to elite sporting teams. I believe this to be a most important contribution to our industry.

Presenting the Sir William Refshauge lecture at the SMA Conference in 1996, was another major highlight in my career.

### What is your advice to those starting out in their career?

My advice to those contemplating a career in Sports Medicine is to ensure a strong background in the sciences during high school and then continue study in these areas at university. They must always be prepared to change with the times and future developments as many jobs and research needs will change greatly in the future.

### Do you have any career regrets?

The major regret that I have is that I retired at age 65 when I could have continued for at least another five-years. In retirement, I have managed to supervise or co-supervise a number of PhD students and co-developed the Sports Science Curriculum for the new Notre Dame University in WA.

As a regular attendee of the SMA Conference, I have gained the “Fellows Award” for outstanding research presentation at four conferences and at the 1996 SMA Conference in Canberra, I was chosen to present the Refshauge Lecture.

I have also presented at the FIMS World Congress of Sports Medicine and I’m a member of the Australian Sports Medicine National Standing Committee on Children in Sport.

Another high point was being appointed a Member of the Order of Australia (OAM) in the Queen’s Birthday Honours list in 2001. The citation was for “*The development of Sport Science in Australia, especially the effects of training on the cardio-respiratory system*”.

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Wishing all our SMA friends a safe holiday season.



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