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By SPNZ President Hamish Ashton

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ASICS EDUCATION FUND
A reminder to graduate members that this $1000 fund is available twice a year with application deadlines being 31 March 2015.

Through this fund, SPNZ remains committed to assisting physiotherapists in their endeavours to fulfil ongoing education in the fields of sports and orthopaedic physiotherapy.

An application form can be downloaded on the SPNZ website sportsphysiotherapy.org.nz.
Editorial

A warm welcome to 2015 from the SPNZ team. I am looking forward to another productive year for our SIG and I feel we have a lot to offer you as a Member, so if you haven’t as yet re-joined make sure you tick the SPNZ box when you renew your PNZ membership.

BJSM
As outlined last year we now have access to this journal and its associated web based resources. This is a great opportunity especially for those who find it difficult getting away to courses to accumulate some CPD points and keep up with what is happening in the sports medicine community. Details regarding accessing this will be in the latest news section as well as a separate email going out. Any issues with this contact me (help@spnz.org.nz)

JOSPT
Those of you who were members last year should have received an email from JOSPT outlining how to re-activate your account so you can continue accessing this journal. For any new Members there is a slight delay in accessing this as PNZ need to get us your details.

Courses
This year has got off to a flying start with the side line sports physiotherapy course having just been held in Auckland. This filled up quickly so look out for the next one being advertised so you don't miss out. We will be holding a number of courses again this year spread out though the country so look out for them being advertised.

As a member you will be notified about them before other PNZ members so you will always get first access. In our next bulletin we aim to bring you a full update on where we are going with our sports physiotherapy educational programme so look out for it.

Social Media
Hopefully you are all aware of our Facebook page, Twitter account, and LinkedIn group. Join them and make use of these resources especially the LinkedIn group. For a number of years you have asked for a forum to discuss ideas. We now have one so make use of it. If anyone out there is an avid social media addict let me know as it would be great to have another person help with the contributions on these sites (help@spnz.org.nz).

For the followers of sport this year is looking to be packed full. The ICC Cricket World Cup has just started and this is followed by the U20 World Cup, the netball, and rugby world cups. Plenty of TV watching for those not involved, and good luck to the physiotherapists involved with the NZ teams.

That's it for now. Have a great year and keep in touch with us, your exec. We are here to provide resources and activities that you want, so let us know what is working and what you want.

Hamish

Hamish Ashton, SPNZ President

Latest News

The British Journal of Sports Medicine (BJSM) is a multimedia portal for authoritative original research, critical reviews and timely debate in sport and exercise medicine (SEM). BJSM content includes clinical education and implementation success stories as well as original research. BJSM’s web, print, video and audio material serves the international sport and exercise medicine community. BJSM is recognised as a leader in sports medicine social media – @BJSM_BMJ, podcasts and blog. BJSM serves 16 sports medicine and sports physiotherapy societies who have over 12,000 members.

Membership of SPNZ now includes online access to the British Journal of Sports Medicine’s Journal and other educational material.

***Access is only via the link on our website in the members section***

Any problems with access contact Hamish help@spnz.org.nz

Look for the SPNZ logo in the top left corner of the website to check you have access.
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Describe your current role.

My role with the BLACKCAPS as team physiotherapist is full time all year round with the majority of time spent away from home on tour. Spending so much time away from home is probably one of the big challenges in international cricket. Some years have players and staff spending over 35 weeks away from home on tour in a given year. As cricket is a summer sport, there is always cricket going on somewhere in the world so there is no true off season. Countries we travel to most commonly include England, Australia, South Africa, West Indies, UAE, Bangladesh, Sri Lanka and Zimbabwe. The home international season runs within November to March which means working during the festive season and summer which is not for everyone!

When I’m not touring there are always other things that need looking after such as: player rehab, attending player appointments with other health professionals, player reviews, attending surgeries, planning meetings, attending professional development, training camps etc.
As with most elite sport physiotherapy roles my core business is around injury prevention and injury management. Making decisions to allow players to keep playing without compromising performance of the individual or the team as a whole is what it’s all about.

As a sports physiotherapist I probably travel heavier than most. Depending on what country we are touring I would usually travel with 3 x treatment tables, 4 x cricket kit bags of supplies, game ready unit, Normatec unit, defibrillator and 2 x medications kits. I prefer to have everything I need ready to go, be prepared for all situations and use quality products I trust from home.

What are your specific areas of interest/research?

I definitely think cricket is an under researched sport therefore there are so many areas that can and hopefully will be explored. My main area of research interest is around shoulder injury in elite cricketers and the associated risk factors. I’ve started with a literature review of shoulder injury risk factors in cricket within my masters study. My next step is to look at some new studies around those injury risk factors in cricket hopefully next year in collaboration with the AUT research department. Once these risk factors are more established I think we can be more accurate with our application of injury prevention programmes and hopefully have a positive impact on shoulder injury rates.

Historically, cricket has used a lot of the findings from baseball around shoulder injury as there are some similarities in the sports. Baseball is relatively very well researched, but there are definite differences in the throwing characteristics between the sports, in particular ball type, distance, throw type and volume, which compromises the usefulness of the findings when applied to cricket.

I think my overall main interest is in delivering the best possible care to the elite level athletes I work with. I’ve found it really beneficial visiting other professional sporting setups and taking some of the best bits from them and applying to cricket. Over the years I’ve been lucky enough to meet with people from following organisations and have them show me around their facilities: NZ Warriors, Baltimore Orioles Baseball Club, Manchester United FC, Athletes Performance Centre in Phoenix, Arizona, numerous cricket high performance centres and University of Pretoria HP Centre.

What are the types of injuries you commonly see?

The short answer is that I see a very wide variety of injuries! Injury studies would suggest that our most common injuries are shoulder, hamstring, side strain, hip and groin, ankle and lumbar spine\(^1,2\). As cricket is a non contact sport, the majority of the injuries I would see are load induced but there are trauma type injuries that occur related to ball contact and contact with the ground or occasionally with another player.

In recent years, with teams playing more T20 cricket, there appears to be some different injury patterns emerging in the injury data. Recent data would suggest that we are seeing more muscle related injury possibly due to the higher level of intensity found in this format of the game. Fortunately, injury rates within the BLACKCAPS have been on the decline over the past few years and are low overall compared with other countries\(^1,2,3,4\).

Physiotherapists with most of the international teams have been collecting injury data for the past two years for a study that the International Cricket Council (ICC) is conducting. We all have a website or portal that we input data into which will hopefully result in some powerful studies. Interestingly, this study doesn’t use the Orchard injury definition\(^5\), but simply any injury or illness that is reported to the team physiotherapist. I won’t be surprised if this results in some very different injury patterns which is highlighted in the Ranson\(^6\) article.
What do you think are the key elements in successfully preventing injury?

One of the reasons I really enjoy working in cricket is that I believe physiotherapists can have a major impact in the area of injury prevention. Prevention of load induced injury is a major focus in our day to day management of players and indirectly relates to optimising performance as well.

Load Monitoring

I. Bowling Loads – every ball a bowler delivers in training or match is recorded. We have various spreadsheets that this data gets entered into and tells us how a bowler is tracking with his predicted loads vs actual loads. This allows us to plan a bowler’s loads for weeks in advance and adjust accordingly. There are now a number of published studies out there which have identified some injury risk parameters in regards to bowling workloads\(^1,7,8\). One of the main findings in the past few years is that bowling load induced injury most commonly presents 3 - 4 weeks post a high load episode\(^9\). This helps us in managing a players loads and understanding times when an individual may be at a high injury risk.

II. Throwing loads – We track throwing loads less intensely than bowling loads, but this is still an area to monitor as throwing too much or too little is likely an increased injury risk particularly for the shoulder. This article is a useful resource for cricket\(^10\).

III. Wellness Questionnaire – this is a quick daily questionnaire that enquires about sleep quality and quantity, muscle soreness, general wellbeing, appetite, session RPE and stress level. This data is all entered into an app on an iPad. Once again we can manage a player’s training and match load better with this information.

Screening & Testing

I. Medical Screening

II. Musculoskeletal screening – we screen our contracted players every 12 months and problematic areas are re-screened periodically to help address any changes we might be trying to affect. As with other sporting codes, our strongest predictor of injury is still previous injury, so probably the most important part of our screening is around getting detail on injury history. This is usually pretty straight forward for us as we have electronic records of player injury history by the time a player reaches the BLACKCAPS. The tests in this screen are focused around those most common injuries we encounter and those that we think we can effect a change on. The following articles have some interesting points around screening in cricket\(^11,12\).

Recovery

I. Recovery is a massive focus for us due to the nature of the demands of international cricket. We use a 10 point recovery plan which includes specifics around sleep, hydration, food, active recovery, pool sessions, Normatec recovery system, alcohol, compression clothing, ice baths, stretching and recovery massage.

II. Travel protocols – We have a number of protocols that we use around travel days, particularly around long haul travel. These are all fairly standard, some of the more interesting parts include use of inflight humidifying masks, use of melatonin, exposure to sunlight and use of probiotics for travellers’ diarrhoea prevention.

Prehab / Rehab Programmes

The majority of the injury prehab programmes I provide are integrated into general conditioning programmes with a few completed separately. We’ve found this has increased compliance and proved to be more effective. Most weeks will have two separate prehab / rehab sessions depending if we are in competition phase or not. I use these sessions to correct techniques, commence new programmes and upgrade. Then the athletes can work semi supervised and build their prehab / rehab into general conditioning, e.g. rotator cuff exercises in rest breaks while doing squats. Our most common programmes are focused on shoulder, adductor, ankle, hamstring, calf and elbow. There are some programmes that are specific to a players’ role in the team, e.g. fast bowlers have additional focus areas such as QL and obliques. Flexibility is also a key focus for our athletes so
we have dedicated sessions with rollers, assisted stretching and massage for improved muscle length.

**Who else is involved in the “support” team that you communicate with and how do you integrate with them to optimise injury prevention and rehabilitation?**

Our athletes now have access to a wide range of professionals while on tour including: physiotherapist, trainer and massage therapist, along with coaches and a performance analyst. We have a doctor for away tours to developing countries and have access to a consultant nutritionist and mental skills expert. In recent years I’ve realised just how much of an impact nutrition can have on the day to day wellbeing of an athlete. Obviously around areas such as body composition and performance aspects but I’m now more aware of muscle recovery related to nutrition as well, e.g. player may present to me with irregular muscle soreness which could be diet related rather than a physical issue. Especially for us when our regular diet is often compromised when we are overseas.

Our High Performance Centre in Lincoln consists of a physiotherapist, coaches, managers, a medical director and trainers who run all programmes below BLACKCAPS level along with supporting us in any way. We have preferred providers around the country in other health related disciplines including sports physicians, hand therapists, surgeons and podiatrists.

We have an integrated approach between BLACKCAPS support staff, selectors, high performance staff & domestic teams. This requires clear communication around player rehab plans, programmes and documentation which can be complex but is very important and works well. Central to achieving this is a custom built software program called The Athlete Management System (AMS) which records all information relating to any player in the elite level New Zealand cricket system. The benefit of the AMS for me is that it serves as a centralized record keeping and management database, which allows players to move between NZC health professionals more smoothly throughout their career.

After using many different formats and mediums I’ve found that a simple spreadsheet works best for collating and sharing injury and illness information internally with coaches and selectors on a single document. I use this for tracking our twenty contracted players and generally another twenty players of interest that are not centrally contracted.

**What are the key attributes you feel are required to work with elite level athletes?**

Along with a passion for the sport I definitely think you need an understanding of the sport, not necessarily from a playing perspective but more around the detailed physical demands placed on the athlete. Being able to deliver quality care in difficult environments and situations is critical – sometimes in highly stressful situations and working with high achieving individuals that expect quality. Decide on your operating philosophy and stick to it. For me, this impacts on how decisions are made around your athletes and how you manage your athletes. An example of this might be how you run your return to sport process. Who makes the decision – player, coach, you, or a combination? I’ve also found that having some understanding of the psychology of the athletes I work with helps me to work more effectively with them.
What do you see as the major challenges for sports physiotherapy?

The main challenge I see particularly when working full time in elite sport is the professional isolation factor. I think as therapists we need to be aware of this and have to make a conscious effort to ensure that we stay linked in with the profession and continuing education. I think having good access to quality professional support networks is essential. I always take the opportunity to attend player appointments with sports physicians, surgeons, imaging facilities and hand therapist, because not only is it good practice, but I will usually learn something from them! When working away from home or abroad you often need to rely on some of these support networks which is much easier these days with the technology we have access to such as Skype.

Lastly, I’ve found that sometimes best practice evidence based research is lacking or absent for some areas of sports physiotherapy practice. So you need to be prepared to really use your own clinical experiences and reasoning to make good decisions.

Main challenges specific to cricket sports physiotherapy.

We travel more than most other sports teams. If you compare us to the All Blacks that have only one tour a year of any length, we have around four to five tours a year of that length! I do get jealous of home-based teams such as NZ Warriors that have great training and rehabilitation facilities. No proper off-season in international cricket creates a continuous season making things like periodization difficult.

One of the interesting challenges in cricket is that in most other sports if a player breaks down during a match then they can be replaced, i.e. soccer and rugby. In cricket the player can’t be replaced, therefore if a bowler breaks down during a test match it can be very difficult for that team to function effectively with one less player. This is one reason why return to sport from injury in cricket is critical to performance of the team.

References on request to help@spnz.org.nz
Clinical Section - Article Review

Lumbar Vertebral Stress Injuries in Fast Bowlers


**ARTICLE REVIEW**

This narrative review discusses the risk factors for lumbar vertebral stress injuries in fast bowlers. The prevalence of stress injuries in this population has been recorded up to 67%. Potential risk factors identified include bowling action, overuse, age, lumbar muscle asymmetry and physical characteristics.

Lumbar spine stress lesions typically occur at the neural arch of the lumbar spine, specifically the pars interarticularis. The pars is shown to be vulnerable to repetitive lumbar flexion, rotation and hyperextension, which are common movements in bowling. The anatomy of the neural arch and the narrowness of the pars interarticularis further increase the risk of injury.

These injuries in fast bowlers occur bilaterally as well as unilaterally, particularly at the levels of L4 and L5. Almost all unilateral lesions are found contralateral to the player's bowling arm.

Stress injuries occur due to the large forces applied to the lumbar vertebra during lateral bending away from the bowling arm during the bowling action. The mixed action of bowling especially is strongly associated with the development of lumbar vertebral stress injuries over other techniques.

Another potential risk factor is spinal musculature asymmetry, particularly of the quadratus lumborum muscles. One study showed a strong association between an increased quadratus lumborum muscle volume (>10%) on the dominant arm side and developing a lumbar vertebral stress injury at the L4 level (relative risk: 4.0). A later prospective study investigated the development of symptomatic pars lesions and quadratus lumborum asymmetry in 56 fast bowlers, aged 13-17 years, over four years. During the period of the study, 11 bowlers acquired a pars lesion, all at L4. All 11 bowlers had larger quadratus lumborum muscles on their dominant bowling arm side. This study demonstrated that bowlers with a quadratus lumborum asymmetry of 25% or more, have a 58% (95% CI: 32%, 80%) probability of developing a pars lesion. The theory is that quadratus lumborum asymmetry increases the shear loading at the pars interarticularis.

Fast bowlers under 20 years old have an increased risk of lumbar stress injury. It is theorised that as inter-vertebral discs are more elastic in younger spines, greater shear forces act on the articular facets, placing greater stress on the neural arch. A further consideration is that ossification of the neural arch may not be complete until the age of 20, placing the structure at further risk.

Current research shows a relationship between overuse and lumbar vertebral stress injuries in fast bowlers. In one study, 59% of players who bowled in more than 17 matches sustained either a stress lesion or a muscular injury. Another studies linked abnormal spikes in bowling workload with an increased likelihood of injury 3-4 weeks later. These authors speculate that after a peak of overuse, new repair tissue is laid down and 3 weeks later this tissue is too immature to cope with the stresses applied to it during normal bowling workloads. This study found moderate correlations between overuse and soft tissue injuries, although the correlation between overuse and lumbar stress injuries was weaker. This has important implications for training modification, as injury risk may increase with overuse and fatigue. To address this issue, some cricket bodies have developed guidelines to restrict the number of overs bowled, especially for young cricketers.

The prevalence of lumbar vertebral stress injuries in males is double that of females. While these defects are often asymptomatic in non-athletic populations, they may be symptomatic in athletic groups. The incidence of these injuries in athletic populations is higher than in the general community, with figures of 8% and 15% reported. However, particular sports have higher statistics of stress lesion. Cricket especially has a high prevalence for stress lesions in bowlers, recorded between 11 and 67%. Overall, these figures indicate that the prevalence of these injuries is disproportionately high in fast bowlers when compared with the general population and other athletes.

**Clinical Applications**

Due to the high incidence of lumbar stress injury in this population, it should be considered as a possibility when seeing a young cricketer. These stress fractures are not visible on X-rays of the spine until they have been present for many months. An MRI, CT or bone scan are more useful tools if a fracture is suspected. It is important to maintain good flexibility in the hamstrings and hip flexors, and good strength and symmetry in the lumbar and core muscles. Young bowlers should be carefully managed in this sport and monitored for workload, bowling technique and overall muscular symmetry.

By Monique Baigent  MHsc (Physiotherapy)
How did you hear about the sports science papers?
Due to my particular interest in sports rehabilitation I investigated papers on-line (through the AUT website) to see what sports papers were available to incorporate within my Masters of Health Practice in musculoskeletal physiotherapy. I also found a physiotherapist who had previously enrolled in these papers and he highly recommended them to me. I was very keen to complete the practicum of physical conditioning and in order to do this I also needed to complete enhancing muscular performance and exercise physiology.

What made you choose papers from the sports science programme?
I knew I wanted to work as a physiotherapist with elite athletes. I hoped that choosing papers from the sports science programme would enhance my knowledge of athletic training/exercise prescription for all levels of sports participants. I also saw this as an ideal opportunity to gain knowledge/exchange ideas with other professionals completing the course (e.g. strength and conditioning coaches and sports scientists). I was enthused by the practicum which consolidated all the theoretical knowledge gained into a practical environment with the other course participants.

How did you find the mix of the sports science papers and the papers from rehabilitation?
Two of the papers were completed solely on-line, so study could be done in my own time and this was useful to be able to work around other papers and employment. The final paper was a practicum of physical conditioning which included a week on campus at AUT Millennium. This paper was particularly beneficial due to the practical content and mixing with all the other course participants.

The sports science papers complemented the papers from rehabilitation by adding to my clinical reasoning skills. I found that the knowledge gained enabled me explain in greater depth the physiological changes occurring due to a prescribed exercise regime.

How have the sports science papers influenced/helped your sports physiotherapy work?
I currently work with elite athletes alongside strength and conditioning coaches and the papers have been invaluable in understanding periodisation programmes towards pinnacle events and the demands expected of an athlete. They have also aided me in rehabilitation exercise prescription.

Any other comments?
Sports science papers are not only beneficial for physiotherapists working in sport, but also in regards to exercise prescription for all patients.

Many thanks to Isobel for taking the time to respond to our questions. For those interested the postgraduate sport and exercise study options at AUT include a range of papers including Exercise Physiology, Enhancing Muscular Performance, Applied Human Movement Studies, Applied Sport Psychology, Practicum in Physical Conditioning and others, many of these can be completed online as Isobel mentioned. For more details go to http://www.aut.ac.nz/study-at-aut/study-areas/sport—and—recreation/qualifications/postgraduate/sport-and—exercise.
Case Study

Getting Hit in the Balls…..To Laugh or Not to Laugh?

I was in a panic, we lost four wickets in no time and I was rushing to get my cricket pads on, coach calls out ‘Vijay you’re up’. I faced the first delivery, as the ball came to me, it spun and it hit the inside of my bat, then ricocheted into my (“oh no, I forgot my box”), my eyes started waterering, the pain was nothing I had ever experienced, I was hunched over feeling sick wishing it would end. The initial laughter I heard around me soon turned to concern, after a few minutes I was fine, and at my innocent age of eight vowed that the first thing to go on for the rest of my life was the ‘box’.

How many times have you see someone get hit in the box and sounded out ooooohhh, laughed then grimaced, I have heard commentators burst out laughing when the physio runs out with his cold spray, what can the physio do…? Well for a start we can, provide verbal support and a drink of water and a pat on the back for reassurance, but if unmonitored over the next few days, a knock in the groin region at 120km/h could lead to disaster.

Once hit in the groin region, the first symptom is a lot of pain. That may be followed by nausea and sometimes vomiting. Anatomically the testicles are made of spongy material that typically absorbs the shock without a lot of damage. They are also covered by a tough material that protects the tissue inside.

There is limited data in cricket on this typical injury as the pain and nausea usually eases in about an hour and no playing time is lost and with most injuries, there is no damage to the testicles’ ability to produce sperm. But it’s important to know that it can happen and as a physiotherapist what signs and symptoms to look for and relevant questions to ask your patient 24-72 hours post injury.

Taking part in certain sports where you may not have a protective box, does not immune you to injury. Sports such as soccer, basketball, or hockey can put you at risk. A stray knee to the groin can find you in difficulty and gasping for air, a deflected soccer or hockey ball can unfortunately hit you in the groin region and take your breath away.

Patient X was playing a one day game, when he was hit in the box by a ball travelling approx. 130km/h. The impact of the ball on the box compressed it against the scrotum. The initial pain and shock settled down, he had a drink of water and carried on. Each time there was a break in play, the team’s 12th man ran out for water, he was asked how he was feeling and to report any abnormal signs and symptoms.

Post-game, player X commented he felt nauseous and wanted to vomit, he was able to pass urine with no pain and no evidence of blood, but on examination there was some swelling around the scrotum and bruising. I advised to ice, continue to monitor it overnight and reassess in the morning, to place a towel under the testicle when he lay and after a phone discussion with the sports doc, I advised the player to take some Panadol for the pain.

The next day the player reported he was fine and had no concerns. Unfortunately four days post injury, the player experienced abdominal pain, and he started to notice blood in the urine and a slight fever. I advised Player X to see the doctor who sent him for a renal and scrotum ultrasound. The US scan reported normal scrotum with minimal bilateral hydroceles, and an abnormal left renal pelvic soft tissue finding. A hydrocele (HI-droe-seel) is a fluid-filled sac surrounding a testicle that causes swelling in the scrotum. Older boys and adult men can develop a hydrocele due to inflammation or injury within the scrotum, I recently treated a hockey goal keeper who, when describing his past history, mentioned he has had a hydrocele approx. 10cm in diameter. It was present for seven years before having it surgically drained. It can be present for a long time as a hydrocele usually isn’t painful or harmful and might not need any treatment. On assessment a doctor may illuminate the scrotum to identify the presence of a hydrocele before confirming it with an ultrasound scan.

The US scan recommended CT of the urinary tract to exclude a potential mass lesion of the left renal hilum. Player X proceeded with a CT scan, and thankfully the scan was clear, he was prescribed some pain relief and generalized rest avoiding weight bearing, breath holding and cycling exercises. Symptoms settled after a period of a week, and he returned to cricket with no ill effects a short time later.

This was a great outcome, but it got me thinking about potential consequences of being hit in the groin and the research around it. Most of the research in urology journals are about the best investigation tools for diagnosis and management plan, but I felt that it was important for my cricket peers to be aware of the two most serious complications as a result of a direct blow

CONTINUED ON NEXT PAGE
Case Study

Getting Hit in the Balls.....To Laugh or Not to Laugh? continued...

to the scrotum: they are testicular torsion and testicular rupture.

Testicular torsion can happen from an injury, such as being hit in the box or kicked in the groin, and research also shows that can occur from strenuous activity. With torsion, the cords holding the testicles in place can become twisted. This cuts off the blood supply to the testicle resulting in a lot of pain. The testicle also gets bigger, tender, and begins to swell; this is a medical emergency. It should be treated immediately. The doctor can treat it by untwisting the testicle and sometimes surgery is needed. The consequences of delayed treatment can mean losing a testicle or losing its function.

Testicular rupture is very rare and it can happen from a direct, forceful blow as the testicle becomes compressed against the pelvic bone. As you can imagine testicular rupture causes a lot of pain, swelling, nausea and vomiting. A rupture causes blood to leak into the scrotum and requires surgery to repair.

Injuries to the testicles can be laughable due to the player’s response, however it is painful and although most instances of being hit in the groin settle down after an hour, it is imperative that as a team's physiotherapist you monitor your players the days following a blow to the groin, always excluding a potential hydroceles, testicular torsion and/or rupture. If in doubt keep the team doctor in the loop and once all cleared, breathe a sign of relief and go back to do what we enjoy the most, watching sport 😊

Refer to your team doctor if your patient has any of these symptoms:

- The injury went through the scrotum.
- Pain doesn’t ease up after an hour.
- Patient continues to feel nauseous or continue to vomit.
- There is bruising or swelling of the scrotum or the scrotum fills with fluid.
- Patient has difficulty urinating and/or blood in the urine
- Fever after an injury to the testicles.
- Pain in your testicles without recalling an injury.

Physiotherapy advice to athletes:

- Take an appropriate OTC pain reliever
- Use an ice pack on the area -- not directly on the skin -- to help prevent swelling and ease pain.
- Place a rolled-up towel under the testicle when you lie down.
- Take it easy for a few days after an injury.
- Avoid strenuous activity.

Wear supportive underwear for a few days to gently support the testicle.

What was your original impression of what was going on?
What was the process to final diagnosis?
In hind sight is there anything you would do differently?
Do you have any clinical tips on this injury?

For answers to these and further discussion check the SPNZ LinkedIn forum page

Click here
Your monthly App review
by Justin Lopes - Back To Your Feet Physiotherapy, SPNZ executive member

Hi,

A new year, another app review…

This month I will be reviewing an app by InteleConnect. This is, I believe, an essential app for all health care practitioners who need to access radiographic results remotely. In the dark ages you either had to contact the radiology group directly or get them to phone through the report, now you can access the image and report on your smart phone or tablet. The app is an extension of Inteleviewer that can be downloaded onto your PC.

**App: InteleConnect (Version 1.1.1)  Cost: Free**

**Requires:** iOS 5.0 or later. Compatible with iPhone, iPad, and iPod touch. This app is optimized for iPhone 5.

**What it is used for:** Remotely accessing patient results.

**Where to find it:** Download from Apple store, [https://itunes.apple.com/nz/app/inteleconnect/id562270725?mt=8](https://itunes.apple.com/nz/app/inteleconnect/id562270725?mt=8) or just search for it in the App store!

**Category:** Medical

**Updated:** 14 January 2014

**Version:** 1.1.1

**Size:** 0.4 MB

**Language:** English

**Seller:** Intelerad Medical Systems Incorporated

© Intelerad Medical Systems Incorporated, 2011 - 2012

**Android or Apple or both:** Both

**Features:**

**Pro’s:** Ability to access images and reports as soon as the radiographer has uploaded them to their server. Can log on and access reports and images from different companies within the same app. Ability to zoom in on images. The ‘break glass’ feature allows you to view your clients images even if you were not the referrer.

Each staff member that requires access needs to apply for an individual account for confidentiality reasons.

- Intelligent patient work-list for GPs and ED physicians
- PACS-Agnostic Universal Viewer
- Real-time patient activity dashboard
- Zero-footprint installation
- Universal patient search
- Intuitive iOS app
- Break-glass for self-service access to patient studies for which you are not the primary referrer
- On-refer for self-service referral to specialists
- Optimized for desktop, tablet and mobile phones
- Secure instant messaging and contact sharing
- Indicator of which radiologist dictated the case
- Multiple levels of critical results

CONTINUED ON NEXT PAGE
Cons:
Unable to save PDFs of reports directly from the app. This is for patient confidentiality due to the risk of the reports being on an unlocked phone when your phone is lost and stolen. (You could take a screen shot of the image or report however and share with the client or save to your database that way, just remember to delete from your photos afterwards). As an aside it is always good practice to ensure your phone has a pin lock with a short automatic lock time to protect yours and your client’s personal information.

How I use the app:
I use the app when I am away from the clinic and need to access my client’s reports in a timely manner.

Overall Rating: 4+/5

Essential clinician companion.
Many years ago now ASICS, through its university based research grants, was approached by Professor Kim Bennell from the University of Melbourne. Professor Bennell had spent many years researching various lower limb pathophysiologies and had come up with an idea for a shoe that she felt could be successful in treating people with medial compartment osteoarthritis of the knee. Now, normally in the footwear industry we talk in terms improving performance so to being involved in an initiative that would encompass footwear as a treatment modality was for ASICS very exciting.

As such, the Melbourne OA was born out of the realization that those with medial compartment OA need a walking shoe that can reduce knee load by encouraging pronation. This is of course completely unconventional as the footwear industry tends to focus most of its effort on either slowing or reducing pronation. This particular collaborative research venture revolved around an interesting and novel concept and challenged ASICS to look at footwear development in a completely different way.

The biggest shift from convention and the most governing feature of the Melbourne OA was to introduce a midsole structure that was going to promote or enhance pronation. This was achieved via the utilization of a three density midsole that starts off very firm on the lateral side, becomes softer in the centre and finally very soft on the medial aspect running down the entire length of the shoe.

Next we had to take away or change any structures that would normally be used to stabilize the foot, the midfoot Trusstic for example. By removing this midfoot support from the tooling we were able to allow for more natural “falling in” to occur during weight bearing.

Previous research has shown using lateral wedging to place the foot in an inverted position can have positive effects when managing the symptoms associated with medial compartment OA. In the past this kind of wedging of the innersole had little effect primarily because these innersoles where being tested in shoes that were either neutral or had been built to diminish pronation but not so when used in the medially soft Melbourne OA.

Once the midsole of the shoe had been designed ASICS looked to OA sufferers to tell us what they wanted from the upper in terms of fit, feel and cosmetics. The feedback indicated they wanted a nice, soft leather walking shoe that was extremely comfortable internally. Of course it also had to fit the foot really well. As a result super soft garment leather was used and internal stitching was kept to a minimum. Furthermore, conservative colours were picked to make the shoe ideal for use in a variety of situations.

Now, thanks to researchers like Kim Bennell and her team at the University of Melbourne, ASICS is proud to bring to the marketplace a shoe for medial compartment OA sufferers that is derived from scientific research and addresses a major health issue affecting our community. In other words, by providing a safer and more comfortable platform on which to walk ASICS hopes to provide OA sufferers with a shoe to reduce knee load and relieve the symptoms of this chronic major joint disease.
REVIEWS
Accelerometer-based measures in physical activity surveillance: current practices and issues
Željko Pedišić, Adrian Bauman
http://bjsm.bmj.com/content/
Physical impairments and activity limitations in people with femoroacetabular impingement: a systematic review
Laura E Diamond, Fiona L Dobson, Kim L Bennell, Tim V Wrigley, Paul W Hodges, Rana S Hinman
http://bjsm.bmj.com/content/

ORIGINAL ARTICLES
Did the 2000 Sydney Olympics increase physical activity among adult Australians?
Adrian Bauman, Bill Bellew, Cora L Craig
http://bjsm.bmj.com/content/
Aerobic exercise increases hippocampal volume in older women with probable mild cognitive impairment: a 6-month randomised controlled trial
Lisanne F ten Brinke, Niousha Bolandzadeh, Lindsay S Nagamatsu, Chun Liang Hsu, Jennifer C Davis, Karim Miran-Khan, Teresa Liu-Ambrose
http://bjsm.bmj.com/content/
Effectiveness of the PLAYgrounds programme on PA levels during recess in 6-year-old to 12-year-old children
Mirka Janssen, Jos W R Twisk, Huub M Toussaint, Willem van Mechelen, Evert A L M Verhagen
http://bjsm.bmj.com/content/
All SPNZ members would have been sent advice directly from JOSPT with regards to accessing the new JOSPT website.
You will have needed to have followed the information within that email in order to create your own password.
If you did not follow this advice, have lost the email, have any further questions or require more information then please email JOSPT directly at jospt@jospt.org in order to resolve any access problems that you may have.
If you have just forgotten your password then first please click on the “Forgotten your password” link found on the JOSPT sign on page in order to either retrieve or reset your own password.
Only current financial SPNZ members will have JOSPT online access.

Volume 45, Number 2, February 2015

EDITORIAL
Postprofessional Cartography in Physical Therapy: Charting a Pathway for Residency and Fellowship Training

MUSCULOSKELETAL IMAGING
Fracture Through an Enthesophyte on the Olecranon Process

RESEARCH REPORT
Diagnostic Clinical Prediction Rules for Specific Subtypes of Low Back Pain: A Systematic Review
Individualized Low-Load Motor Control Exercises and Education Versus a High-Load Lifting Exercise and Education to Improve Activity, Pain Intensity, and Physical Performance in Patients With Low Back Pain: A Randomized Controlled Trial
The Impact of Physical Therapy Residency or Fellowship Education on Clinical Outcomes for Patients With Musculoskeletal Conditions
Exercises Including Weight Vests and a Patient Education Program for Women With Osteopenia: A Feasibility Study of the OsteoACTIVE Rehabilitation Program
Immediate Effects of Real-Time Feedback on Jump-Landing Kinematics
Baseline Pain Intensity Is a Predictor of Chronic Pain in Individuals With Distal Radius Fracture
Differences in Health-Related Quality of Life Among Subjects With Frequent Bilateralor Unilateral Knee Pain: Data From the Osteoarthritis Initiative Study
Measurement Properties of the Brazilian Version of the Penn Shoulder Score (PSS-Brazil): Reliability, Validity, and Responsiveness

BRIEF REPORT
Global Ratings of Change Do Not Accurately Reflect Functional Change Over Time in Clinical Practice
The FASTEST GROWING TAPING COURSE ON THE PLANET

Venue: Abilities in Action, 14b Hocking Street, Mount Maunganui
Presenter: Leanna Veal (Owner: Back in Action Physiotherapy)
Date: 28/02/2015
Times: 8:15am registration, 8:30am - 5:00pm
Included in seminar pack: 1x roll (5x5cm) RockTape, course handout, morning tea, lunch and afternoon tea.

Cost:
$300 (incl. GST) qualified practitioners,
$200 (incl. GST) for students.

FULL DETAILS AT WWW.ROCKTAPE.CO.NZ
OR EMAIL CAM@ROCKTAPE.CO.NZ
LOCAL COURSES & CONFERENCES

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<th>What</th>
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<td>21 February 2015</td>
<td>Myofascial Release Therapy Training Courses - The Fundamentals</td>
<td>Auckland</td>
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<td>27 February 2015</td>
<td>The Oov Foundation Course</td>
<td>Hamilton</td>
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<td>28 February 2015</td>
<td>RockTape (Kinesiology) Taping 1 day Seminar</td>
<td>Mt Maunganui</td>
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<td>7 March 2015</td>
<td>Assessment &amp; Rehabilitation of Chronic Shoulder Conditions</td>
<td>Christchurch</td>
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<td>9 March 2015</td>
<td>Podiatry New Zealand - Evaluation &amp; Management of Toe Walking from PT &amp; OT Perspectives</td>
<td>Wellington</td>
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<tr>
<td>21 March 2015</td>
<td>Myofascial Release Therapy Training Courses - The Fundamentals</td>
<td>Tauranga</td>
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APA CPD EVENT FINDER

SPNZ members can now attend APA SPA (Sports Physiotherapy Australia) courses and conferences at APA member rates. This includes all webinars and podcasts (no travel required!).
To see a full list visit the APA and SPA Events Calendar

APA SPA COURSES & CONFERENCES

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<tr>
<td>28 February 2015</td>
<td>Management of Hamstring Strains in Elite Sports</td>
<td>Silverwater, NSW</td>
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<td>28 February 2015</td>
<td>The Sporting Elbow, Wrist and Hand</td>
<td>Banyo, QLD</td>
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<td>7-8 March 2015</td>
<td>Sports Level 1</td>
<td>Warners Bay, NSW</td>
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<td>14-15 March 2015</td>
<td>Sports Level 1</td>
<td>Silverwater, NSW</td>
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<td>20-21 March 2015</td>
<td>Running Workshop - Level 1</td>
<td>Adelaide, SA</td>
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<td>25 March 2015</td>
<td>Management of Concussion in Sport</td>
<td>Camberwell, VIC</td>
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<tr>
<td>27-29 March 2015</td>
<td>Sports Level 2</td>
<td>Silverwater, NSW</td>
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<tr>
<td>28-29 March 2015</td>
<td>Sports Level 1</td>
<td>Camberwell, VIC</td>
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HAMILTON

Anglesea Clinic Physiotherapy

Experienced Musculoskeletal Physiotherapist

A full time position for an experienced musculoskeletal physiotherapist will be available in February 2015, to work in our well-known clinic in the Hamilton CBD.

New graduates seeking employment in Hamilton will also be considered for this position.

Our clinic is part of a complex including sports physicians, podiatrists, nutritionist, radiologists and A&E. It is modern, fully equipped and includes a purpose built gym. We use contemporary technology, enjoy full administrative support and have a large client base.

This position offers regular in-service training, peer reviews and fantastic professional development opportunities. The ideal candidate must be a team player and have excellent skills in manual therapy and exercise prescription. Experience in acupuncture and Pilates would be an advantage.

Visit our website at www.angleseaphysio.co.nz.

Please email your CV and accompanying cover letter to trish@angleseaphysio.co.nz or phone Trish on 021433166.

All enquiries are strictly confidential.
WELLINGTON
Wellington Sports Medicine
Sports and Musculoskeletal Physiotherapist
Exciting opportunity for an experienced sports and musculoskeletal physiotherapist to join our team at Wellington Sports Medicine in the ASB Sports Centre in Kilbirnie, Wellington.
The successful applicant will require excellent clinical, communication and professional skills to work in an integrated multi-disciplinary team.
For an overview of Wellington Sports Medicine, please check out our website at: www.wellingtonsportsmedicine.co.nz
All enquiries and applications should be emailed with a cover letter and CV to our Practice Manager at koa@wellingtonsportsmedicine.co.nz

HASTINGS, HAWKES BAY
Optimise Physiotherapy
Talented Senior Musculoskeletal Physiotherapist
Salary: NZD $70k+
Optimise Physio is looking for a talented, experienced manual physiotherapist who excels working in a stimulating and driven environment where high performance and delivery are at the core of what we do. We see a broad range of acute and chronic musculoskeletal conditions as well as sports injuries and trauma. We offer excellent salary and benefits including professional development designed to attract and retain the best talent available. Candidates must have previous private practice experience and a minimum five years post-graduate work experience.
All enquiries and applications should be emailed with a cover letter to Katy via katy@optimisephysio.co.nz or phone 06 9742322 for a confidential discussion. You can view our website at www.optimisephysio.co.nz.

NGARUAWAHA/HAMILTON
Lifestyle Physio
Fulltime Physiotherapist - Ngaruawahia/Hamilton clinics
We are looking a motivated and enthusiastic sports physiotherapist to join our team. This role would suit someone who is looking for an interesting and varied workload. Opportunities are available to work with provincial sports teams. Excellent monthly in-services and training.
Our physiotherapists have a close working relationship with local GPs, specialists and are actively involved in the wider community.
Excellent remuneration, PAYE job benefits and support for on-going education.
We can tailor these positions to suit the skills, experience and interests of the successful applicants.
New Grads welcome to apply. Start date: March 2015
Send cover letter and CV to Victoria Grant at Victoria@lifestylephysio.co.nz or contact us on 07 850 5950.