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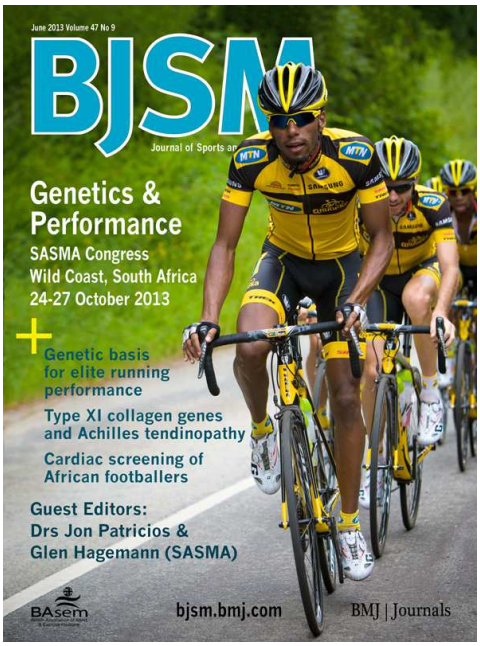
NEWSLETTER – March 2014

Dear SASMA Members

A Hatrick for SASMA!

For the 3rd year in a row, the SASMA edition of BJSM has won the "Cover of the Year" award. The cover featured SA's MTN Qhubeka Pro Cycling Team.



BJSM Cover Draw Prize winner

Congratulations to sports and exercise medicine stalwart Dr Christa Janse Van Rensburg who is one of the prize winners of a sports medicine text book!

Up, Up and Away Mentorship Programme

Athletes start participating in sport with innocent enjoyment, but for many, with time other dynamics may be introduced that you may or may not have considered. Temptations such as drugs, alcohol, steroids, bribery, match fixing and corruption may come into the field of play. The Up, Up and Away programme equips you with the skills and knowledge to deal with these temptations that may enter your lives so that you are not tackled during your professional career.

Contents of the programme includes: facing fears; improving self-esteem; setting boundaries; working with role models; getting in touch with your moral compass; education of dangers and effects of substances in sport and managing temptations that can come ones way.

Audience: 12 years and upwards

Programme duration: The programme involves a one hour free assessment and then a 5 session programme to the convenience to the individual. Group programmes are available by arrangement.

To book or for more information contact Jo:

Practice phone number: 011 447 5316

Cell: 082 657 2298

Email: upupandaway@telkomsa.net

Hip Workshop

Date: Saturday, 12 April 2014

Time:
08h00 – 16h00

Presenter : Mr Barry Getz (Physiotherapist)

Venue:
Netcare Rosebank Hospital, Centre for Sports Medicine & Orthopaedics, 9 Sturdee Avenue, Rosebank, 2132

Cost:
R1 250.00

Applied for 7 CEU's
To book or for enquiries contact: To: :Safiyya Mohamed, Key Stakeholder Manager (Closing application date 4 April 2014)
Tel: or e-mail: 081 361 0070
safiyya.mohamed@netcare.co.za

Limited to 30 physiotherapists. Booking is essential as space is . Breakfast, Tea & Lunch will be served!

FSEM Position Statement Exertional Heat Stroke

The Faculty of Sport and Exercise Medicine UK has produced a guide for the immediate recognition and treatment of Exertional Heatstroke (EHS) in those participating in exercise and sport. EHS is a severe heat illness, defined as central neurological dysfunction associated with an elevated core temperature, above 40°C, during or after exercise. It is caused by an inability to lose heat appropriately and is more common in warm and humid conditions where evaporation of sweat is ineffective. It also occurs in cooler environments when endogenous muscular heat production may be high. Unrecognised or untreated, EHS can cause significant morbidity and may be fatal. Even when treated, there is a significant risk of short and long-term complications. Immediate recognition and treatment is therefore vital.

- The diagnosis of EHS should be considered in any collapsed runner or athlete especially if there are signs of central nervous system (CNS) dysfunction. A clear reliable diagnosis of EHS can be made if these CNS signs are accompanied by a reliable measurement of a core temperature indicating hyperthermia (greater than 40°C). Rectal temperature measurement is therefore mandatory in any collapsed or confused runner. A rectal temperature is the most accurate core temperature: peripheral methods of temperature measurement, including aural thermometers, may give erroneous readings and cannot be relied upon.
- Medical staff should be aware that EHS may present with paradoxical signs of shivering and peripheral shutdown and that EHS can occur even in cool conditions.
- Heat stroke is a medical emergency and rapid onsite cooling intervention is

required. Ice water immersion is the most effective method of cooling a hyperthermic patient but can be difficult to achieve when trying to protect the airway or gain intravenous access. Stripping the athlete, soaking with water and continuous fanning are also effective. Wrapping the athlete in wet towels combined with fanning is an alternative. If the athlete is unconscious, immersing their hands and feet in cool water can also be used as an adjunct. Simple cooling by placing ice bags close to the major arteries (axillae, groin and neck) is significantly less effective than immersion.

- The aim of treatment is to reduce further metabolic heat production as quickly as possible and prevent organ damage. Targets for treatment should be a resolution of confusion and a core temperature below 39°C. There is a risk of hypothermia during cooling treatment which may cause further metabolic heat production through the onset of shivering therefore regular core temperature monitoring (for example, with an indwelling thermistor) is important.
- Patients with prolonged symptoms, despite onsite cooling, should be transferred to hospital.
- Field and hospital medical teams should be aware of the complications of EHS, many of which may not be evident in the field hospital setting and may present later, commonly in the first 24 to 48 hours, even if patients appear to recover rapidly at the initial presentation. Initial blood biochemistry within several hours of collapse is often normal and may require repeating. The complications can include rhabdomyolysis and neuro-cognitive dysfunction, as well as renal, liver and multiple-organ failure. Neuro-cognitive dysfunction includes disorientation and confusion, which may be chronic. Even if asymptomatic, EHS patients should be followed up to ensure resolution of biochemical derangement.
- Patients should be educated that after one episode of EHS, there is a risk of further episodes. Heat tolerance testing may be useful, where facilities exist.
- Those suffering from EHS are advised to avoid all exercise until they are asymptomatic and laboratory investigations have returned to normal. Return to exercise should be gradual, and under the guidance of their sports and exercise physician or GP.
- Medical teams should be aware of the rare association with Malignant Hyperthermia (MH) muscle types. If

sedation or anaesthesia is required, drugs which are known to trigger MH (for example, suxamethonium), should be avoided.

- It is vital to ensure that athletes, sports participants and medical staff are fully educated about the potential risks of developing EHS during exercise, as well as the risk factors which may increase the likelihood of developing the condition.

Authors: Dr Edward Walter, Dr Courtney Kipps, Dr Richard Venn, Dr Rob Galloway, Dr James Thing, Dr James Pegrum, Dr Brian Robertson, DR Rob Galloway, Dr Dan Roiz de sa
Ref: Walter EJ et al. Exertional heat stroke — the athlete's nemesis. JICS 2012; 13(4): 304 – 308

Useful links:

http://www.kinetic-revolution.com/deep-hip-rotators-active-piriformis-stretch-for-runners/

http://www.acsm.org/

http://orthoinfo.aaos.org/menus/sports.cfm

Don't forget to access **SAJSM and BJSM** through

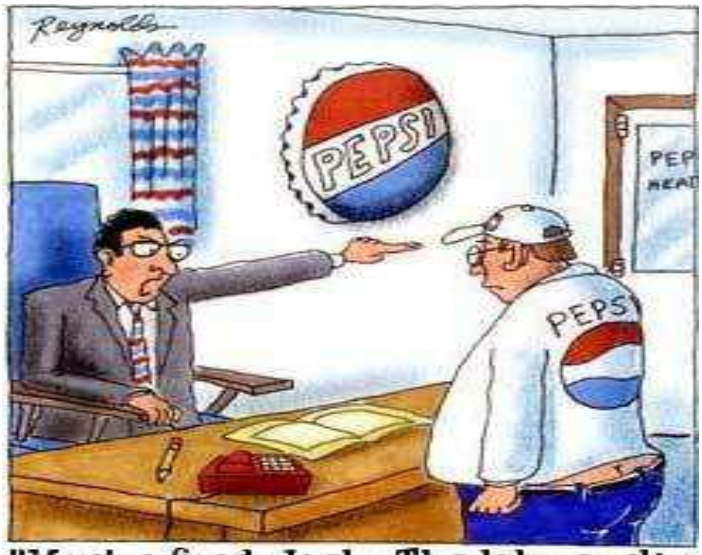
http://www.sasma.org.za/

To access BJSM, SASMA members need to login to Forum at http://www.sasma.org.za/members/ and then access the BJSM link which is the third section on the forum posts. If you cannot login then you have to register on the Forum first.

Podcasts

Some podcasts available at **BJSM** via www.sasma.org.za:

- AMSSM Sports Medcast: Overuse injuries and burnout
- Cricket injuries, with Alex Kountouris
- Lower back injuries in cricket players, with Alex Kountouris
- Dr Bert Mandelbaum on PRP and stem cells for treatment /exercises for injury prevention



"You're fired, Jack. The lab results just came back, and you tested positive for Coke."

From the BJSM Blog
http://blogs.bmj.com/bjsm/

Career Development – How to get the #DreamJob?

You know the job you'd love to have, sports physio or sports physician for a team of your choice. And/or working in a private clinic where you respect the clinical leaders and they provide terrific opportunities for developing your skills through working with teams, attending conferences, ensuring continuing professional development on site including workshops. How do you get such a job? Why would the Australian Cricket Team choose you as their physio? Why would Barcelona FC choose you as the head of sports medicine & sports science?

Leading sports clinicians have shared these 5 elements:

1. Differentiate This should be on every student/trainee's mind. We often call it 'specialisation' in our disciplines but that word has specific meanings (e.g. Titled Sports Physio); the concept of 'differentiation' is a broader one. Being a 'sports physio' is not enough if you want to be considered for a cricket job. You'll need to get experience in cricket of course. Or, even as a Titled Sports Physio, you might differentiate further into shoulder injuries. Sounds simple!

2. Add value I almost bundled this in with 'differentiation' because ultimately the point of differentiation is to provide special value. Extending the cricket example, you'll get the cricket job not just because you have 'experience' in cricket but because you are better at treating backs, shoulders, and finger injuries. By recognising this need, you might chase experience in treating shoulders and fingers by spending time with specialists in those roles – even if those clinicians are not expert in cricket. Gaining experience may not be a straightforward path but if you are clear on the goal, you know HOW your will 'add value', you can at least go after those skills.

3. Volunteer strategically The first job is the hardest and that is particularly the case in 2014. The Baby Boomers have the #DreamJobs and they aren't marching away from them yet. Also, national unemployment is high the world over; youth unemployment – yes, that means new graduates — is at a record high. So, if you ever thought that after your final exams or graduation, you would be able so scan a long list of advertisements offering you and your peers full time work…. I'm sorry to be a bearer of bad news. But don't be disheartened – you have a valuable, practical, degree in hand or coming, so please adjust to the fact that you need to volunteer and network the way many graduates have done in many disciplines for decades.

Be patient, take care of the process and the outcome will take care of itself. You'll often have to start with part-time opportunities. As a volunteer, if you are confident of 'adding value' (see above) you may have some leverage – you are bright, prepared to work hard and you have acquired some skills. And nothing is 'below you'. Need the water bottles? That's OK. Fetching balls? OK too. Remember that the top team clinicians will also do a bit of that where needed. It's a team. No-one is suggesting a trainee sports physician or physio agree to serve as a bowling machine as 100% of a volunteer experience. But it is invaluable to experience a 3-day training camp where you meet the key coaches and officials, see the sport first hand, and at least watch assessment, treatment and prevention programs first hand. This will definitely provide you skills you didn't learn about at Uni.

4. Network This word has negative connotations for some young people – who may be confusing networking with nepotism. The words are very different and carry very different implications. Networking means you try to connect with people you think are influential in the field and who may be able to guide you. If you can have an appropriate 'mentor' agree to guide your career that will be invaluable. But mentors are busy and you may not have things to offer the mentor (money, time at your ski chalet, a drive in your Porsche) so it makes sense to have a few different mentors – so you don't burden 'one mentor' too much. Sports Medicine events such as educational programs run by your local and national sports medicine organization can be excellent networking events. In Australia, Sports Medicine Australia, (one of BJSM's 13 member societies) runs excellent networking events for members and non-members. In the US, the AMSSM conference is terrific for sports medicine fellows; there are specific 'networking events' within the program. Network young, network early. In many prestigious Business Schools they start the students networking in the first weeks. In sports you'll need to network just to get your volunteer opportunity!

5. Be prepared to travel – live in a different environment for a while. Finally for this short blog, remember that many folks have to travel beyond the backyard to make their dreams come true. Read biographies of your heroes on Wikipedia and see if they did everything they needed to do to become great in their birth city. Russell Crowe (@RussellCrowe) famously had to move to make his career as a Rabbitoh's spruiker. Think of folks like Roald Bahr (@RoaldBahr, Norway) and Timothy Noakes (@ProfTimNoakes, South Africa) who may seem the archetypal home grown talents and proud ambassadors for their country; both report pivotal years away which changed their lives. Concussion expert Prof Winne Meeuwisse moved from Vancouver to Calgary for better opportunities. The list is long. To share a personal story for illustration, I moved to Canada for love (without thinking about work, I am not as strategic as I am advocating in this blog!) yet it proved to be a boon for my development as a sports physician

If you feel we have missed something about how to improve your career chances, just email Karim.Khan@ubc.ca your comments or a blog post and we'll add it to the conversation. If you want to make a point in <140 characters, tweet to @BJSM_BMJ. #TopJobs or suggest someone you'd like to hear share their thoughts on a BJSM podcast.

Athletic Shoes

Wearing the appropriate athletic shoe for specific sports activities can improve comfort and performance, and most importantly, prevent injuries. Sports can place tremendous pressure on the feet, ankles, and legs. Running and jumping, for example, generate an impact force through the legs that is three-to-five times a person's body weight.

Today's athletic shoes are designed with specific activities in mind. If you participate in a single sport more than two times a week, you should purchase a shoe specifically designed for that sport — a running shoe, court shoe, cleats, or hiking shoe. If you are active in many different forms of exercise each week, a cross training shoe may be the best choice.

Tips for Finding the Right Athletic Shoe

From http://orthoinfo.aaos.org/topic

- When possible, shop at a store that caters to the sport in which you participate. If you are a runner, go to a running store; if you are a tennis player, purchase your shoes at a tennis shop. If this is not possible, do some research before shopping to find out what type of shoe is most appropriate for your favorite sport.
- Because your feet swell throughout the day, try on shoes at the end of the day or after a workout.
- To ensure a proper fit, wear the same type of sock that you typically wear when you are participating in the sport for which you are buying the shoes.
- Make sure the heel counter — the back of the shoe that holds the heel in place — adequately grips your heel to ensure stability.
- There should be at least a 1/2 inch space between your longest toe and the tip of your shoes.
- The toe box — the front area of the shoe — should have ample room so that you can wiggle your toes. Your toes should never feel cramped in an athletic shoe.
- When you try on shoes, walk around the store on different surfaces (carpet and tile, for example) to ensure that they are comfortable.
- Always tighten the laces of the shoes that you are trying on so that your feet are secure in the shoe. There are many different types of lacing patterns that can be applied to the shoe to adapt for, or minimize, foot pain or structural anomalies.

Try on both the right and the left shoes to make sure that they fit. Also, inspect the shoes on a level surface to ensure that they are straight, even, and without defects.

Make sure that the shoes have not been sitting on the shelf for an extended period of time. While the materials of an athletic shoe are designed to accommodate a lot of stress, the cushioning may become less effective over time, even without use.

Types of Athletic Shoes

Running Shoes

Much of the recent research in athletic shoes has focused on the development and improvement of running shoes. Running shoes are grouped into three categories:

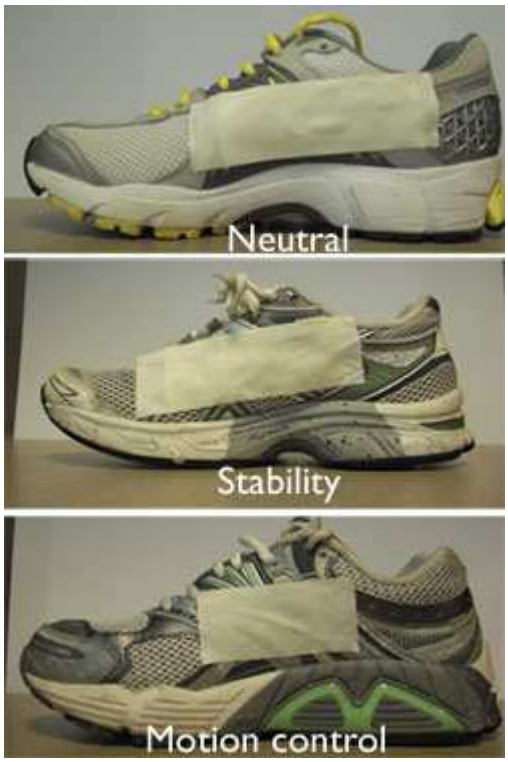
- **Cushioned** or "neutral" shoes are designed for runners with high arched, rigid feet. Runners with this

type of foot are classified as "supinator." The midsole of a cushioned running shoe will generally have a single color of soft foam material, ethylene vinyl acetate (EVA), in the arch and heel. A moldable synthetic material, EVA has varying density properties to provide more or less cushion in the shoe.

- **Stability** shoes provide light to moderate stability for individuals with an arch that may collapse while running. This type of runner, classified as a "pronator," needs to maintain their arch while running. Stability shoes have two to three different shades of gray polyurethane material in the arch, and possibly the heel, each with a different density to provide more support for the pronated (flat) foot type. The polyurethane material will make the shoe feel heavier than a shoe made only with EVA.
- **Motion control** shoes are designed for runners who are "severe pronators." Motion control are the most stable running shoes, and are the shoe of choice for runners with flat feet, and those with a heavier body weight. A motion control shoe may have an extra stabilizer added to the inside edge of the heel counter to provide maximum control. The outer sole of the running shoe will be made of carbon rubber or blown rubber, which is made with injected air. A carbon rubber sole is made from a heavier material, is somewhat stiffer, and provides more durability to the shoe. Blown rubber soles are flexible and lighter in weight providing more cushion than stability.

The best way to determine if you are a supinator or pronator runner is to have a professional evaluate your foot. To determine your foot type on your own, view your footprint when you step out of the pool or shower. If you leave a wide, flat footprint you have a pronated foot. If the footprint is missing the inside of the foot, where your arch did not touch the ground, you have a supinated foot type.

While knowing what type of foot you have is a first step toward buying the correct shoe, the pronation/supination component may be magnified during running. A professional can perform a gait analysis to definitely determine how your foot functions while you are running.



A running shoe professional can analyze your gait to help determine the best type of shoe for you.

Running shoes need to be replaced on a regular basis. The EVA starts to show structural damage after 120 miles. At 500 miles, the shoe has lost 45% of its initial shock absorption capabilities. A general rule of thumb is to take 75,000 and divide it by your weight to determine the number of miles that you can run before you need a new shoe. For example, if you weigh

150 pounds, your shoes should be replaced every 500 miles.

Barefoot Running Shoes

Running without shoes, or "barefoot running," is growing in popularity. A professional trainer can tell you if this type of running is a good choice for you, and if so, provide you with tips and exercises to help you safely and slowly transition from running in shoes to running barefoot. You can purchase shoes specifically designed for barefoot running that offer no support or cushion, but do provide some protection from sharp objects and uncomfortable surfaces.

Cross Trainers

A cross training shoe is designed to take you from sport to sport with one pair of shoes. This type of shoe is not appropriate for someone who plans on running more than four to five miles a day. A cross trainer is usually made of a combination of mesh materials and strips of leather in the fabric. If the shoe has a "running" tread on the sole, it may be difficult to wear the shoe on a court for an exercise class or game.

Walking Shoe

Walking shoes provide stability through the arch, good shock absorption, and a smooth tread. Walking involves a heel-toe gait pattern, so you want to make sure that the shoe, and particularly the counter, is stable. If you have arthritis or pain in the arch of your foot, you may benefit from a rocker sole that encourages a natural roll of the foot while walking.

Court Shoe

Court shoes include those designed for basketball, tennis, and volleyball. Court shoes have a solid tread and typically are made of soft leathers. They are designed to provide stability in all directions. They may have the traditional low upper cut below the ankle, or a high cut. The higher upper is commonly found on basketball shoes to offer increased stability to the ankle during jumping and landing.

Cleats

Many sports, such as soccer, lacrosse, football and baseball, require the athlete to wear a cleat shoe. Shoes with cleats (also called "spikes" or "studs") have multiple protrusions made of steel or hard plastic that provide additional traction on grass or soft turf.

There are different types of cleats for different sports, so it is important to consult with a coach or professional before purchasing a new cleat shoe. Cleats tend to run narrow so if you wear an orthotic (a shoe insertion to provide added support), or plan on putting an extra insole in the cleat, you may want to purchase a brand that is known to have a wider cut.

Soccer cleats do not have a toe cleat so there is no drag on the ground when the player kicks the ball. Soccer cleats tend to be more form fitting and have a tighter feel, providing more control to the player as he or she kicks the ball. A cleat that has a lower profile is designed to form to the foot so that the player feels like his or her foot is one with the ball. Soccer cleats may be made out of kangaroo leather or different types of microfibers. A cleat made from kangaroo leather should fit snug at first because it will stretch over time.

Lacrosse cleats often have a high upper around the ankle for added stability since much of the game involves running quickly, changing directions, and performing start/stop maneuvers on grass or turf. They are designed like a football cleat in that they have a center front toe cleat to provide traction when moving forward. Lacrosse cleats have a more supportive midsole than a football cleat. A lacrosse cleat is most often molded onto the outer edge of the sole versus under the ball of the foot.

Football cleats are different from soccer cleats in that they have a center toe cleat that improves traction during quick starts. Football cleats typically have a stiffer outsole than lacrosse cleats. A football cleat will have spikes

or studs that can be removed from the outer sole, or those that are molded to the shoe.

Spikes are usually preferred on a grass or field turf surface, allowing a player to dig into the surface and resist forces that may stop forward movement. Removable cleats are advantageous because they can be switched out for different surfaces. They come in 1/2, 5/8, 3/4, and 1 inch sizes. Molded cleats are preferred on turf surfaces to provide more traction. A lineman may benefit from a high top cleat above his ankle, which provides more stability during lateral movements. A running back or wide receiver may prefer a low cut cleat providing greater agility on the field while performing cutting maneuvers.

Baseball cleats have longer/narrower cleats that are attached to the sole of the shoe. Baseball cleats also have a toe spike to provide traction when taking off from a base and running in dirt. These spikes are often made of steel versus the molded plastic studs in other cleats. If the baseball field includes artificial turf, only the pitcher and catcher will wear spikes.

Hiking Shoes

A hiking shoe needs to provide stability as you walk across uneven surfaces, as well as comfort and cushion in the insole to absorb the shock from various impacts. Hiking shoes also should have a good tread on the sole to keep your foot firmly planted on the surfaces that you encounter. Most hiking shoes have a higher upper, providing added ankle stability.

Other Sports Shoes

There are shoes designed for virtually every sport, including golf, ballet, skating, hockey, cycling, and skiing. As always, a professional can help you to purchase the shoe that is best for you and the sport you enjoy.

Skates and ski boots can be custom molded to fit your feet, providing extra stability. Golf shoes need to provide stability in the arch of the shoe as the game requires players to walk long distances on changing surfaces. If possible, it is best to purchase a golf shoe with a removable insole so that you can add an orthotic if necessary.

Cycling shoes are fit snuggly, without additional room for inserts. A cycling shoe with some cushion under the ball of the foot will help reduce any compression while you repetitively push the foot as it is securely attached to the pedal.

Look out for feedback from next month's

IOC Conference on Injury Prevention

The IOC World Conference on Prevention of Injury & Illness in sport will be 2014's premier international conference for those interested in clinical aspects of sports and exercise medicine. The diverse faculty represent the pre-eminent international authorities in injury and illness prevention. South Africa and SASMA will be well represented!

Best wishes

JON PATRICIOS, SASMA PRESIDENT

Please email me at jpat@mweb.co.za with comments and suggestions.