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from the CEO's



Citius, Altius, Fortius.

The above is the Olympic Motto and is a Latin phrase which means Faster, Higher, Stronger!

It all started in Olympia in Greece when the first ancient Olympic Games were held in 776BC. Then 1500 years later the First Modern Olympic Games initiated by Baron Pierre de Coubertin were held in Athens Greece.

At the time of writing this article there is just over 20 weeks to the XXXI Olympic Games in Rio de Janeiro, the first Olympic Games in South America and our athletes are hard at work looking to qualify for this once in a lifetime experience. On the one side it is to be a spectacle for the World of Sport to be proud of, but in the current light of all the cheating and drug accusations going around, one cannot be too sure how these Games will pan out. Where has the **Olympic Oath** which was written by Baron Pierre de Coubertin gone? "In the name of all the competitors, I promise that we shall take part in these Olympic Games, respecting and abiding by the rules which govern them, in the true spirit of sportsmanship, for the glory of sport and the honour of our teams".

There are still investigations taking place in certain countries about their respective drug related problems and the world could be robbed of seeing some of the top athletes in the world due to this scourge.

During the Games there will be around 10 500 athletes from 206 Countries taking part and a fantastic gesture from the IOC is that a team under the banner of refugees without a country to call home can still compete in the Olympics, on the newly-created Team of Refugee Olympic Athletes (ROA). The 5-10 person Team will take part in the opening ceremony, wear its own uniform from the IOC and compete under the Olympic flag. "By welcoming the team of Refugee Olympic Athletes to the Olympic Games Rio 2016, we want to send a message of hope for all refugees in our world," IOC President Thomas Bach said. The National Olympic Committees identified 43 candidates for the team, and the IOC will announce the final 5-10 athletes at its meeting in June.

There will be 306 medal events over the 17 days and the athletes will be competing for 161 men's, 136 women's and 9 mixed medals in 42 sporting disciplines at 32 Competition venues in the Barra, Deodoro, Maracana and Copacabana districts of Rio. This year will see the return of two events at the Games with Rugby Sevens (Rugby welcomed back after 92 years) and Golf being welcomed back after 112 years.

Rio and its History:

The city of Rio de Janeiro has a rich and colourful history.

The seat of power of the Portuguese Colonial Empire in the early 19th century and later the capital of the Brazilian Republic, Rio has been a witness and key player in many chapters of the nation's story. In 1500, on 22 April, a Portuguese fleet commanded by Pedro Alvares Cabral arrived of the coast of what is today known as the state of Bahia.

In 1 January 1502 Guanabara Bay is first seen by Portuguese seafarers. As they initially (and wrongly) think it is the mouth of a large river, they name it Rio de Janeiro (January River). On 1 March 1565, Mem de Sá's nephew Estácio de Sá founds the city of São Sebastião do Rio de Janeiro in the area located between Sugarloaf Mountain and the Cara de Cão Mountain, in the district that is today known as Urca. In 1808, the Portuguese Royal Family lands in Rio de Janeiro, having left home after the invasion of French troops under the command of Napoleon. Rio de Janeiro becomes the seat of the Portuguese monarchy, a status that lasted until 1821. In 1822 Brazil's independence is proclaimed by Dom Pedro on 7 September, ending the country's status as a colony of Portugal. Adopting the name Dom Pedro I, he becomes the first Emperor of Brazil. On 15 November 1889, Marshal Deodoro da Fonseca proclaims the Republic of Brazil in Praça da Aclamação (now Praça da República) in Rio de Janeiro, ending the rule of the monarchy.

In 1950 the inauguration of the Maracanã Stadium took place and staged the FIFA World Cup final. In a shock result, Brazil lose 2-1 to Uruguay. Later this year this stadium will be the venue for the staging of the opening and closing ceremonies, as well as football matches.



In 1964 a military coup establishes a dictatorship in Brazil and in 1985 after 20 years in power, Brazil's dictatorship comes to an end.

On 2 October, the city of Rio de Janeiro is elected to host the 2016 Olympic and Paralympic Games and in 2014 Brazil hosted the FIFA World Cup.

To all our athletes taking part in the Games of the XXXI Olympiad, we express our best wishes to you all and trust that you will do the Country, The University of Pretoria, the hpc and yourselves proud and that you will return successful.

Toby Sutcliffe

Rio 101

Text: Wilhelm de Swardt

When Rio de Janeiro is being discussed, people immediately think about sunshine, outstretched white beaches and 'beautiful people' relaxing with a cold drink in hand or having fun on the beach.

But the world's best athletes will do well to forget about these iconic images and instead focus on the task at hand. The Olympic Games happens only once in four years and for many athletes this one will be their only chance to win a medal.

Andrew Grant (consultant for the national rowing squad), Jimmy Clark (HPC Sport Scientist) and Lindsey Parry (national triathlon coach) went on 'recces' to Rio last year to get a feel for the city and find out what the do's and don'ts are.

Grant said the weather in November was extremely hot and humid.

"It reminded me of Durban on a hot day, but it can be smoggy as well. I think at the time of the Olympic Games (July and August) it may be a touch cooler.

Asked to give his impressions on Rio, Grant said: "The beaches (Ipanema and Copacabana) must be about 10km of continuous white sand. The busy beaches are interrupted only by a rocky point between the two. Anything goes, but beach volley ball and beach 'foot volley' are the most popular games. Some teams are hustling for money while others are just playing together as a group of friends.

"Though most people are quite laid back, exercising is also popular. You will see hundreds of people walking or jogging, even 'gymming' on apparatus

provided by the city. So it's active, hot and relaxed.

"One can see that soccer is in the Brazilians' blood because fans wearing their supporters kit can be seen everywhere.

'Coco or coconut juice is the most popular beverage. There are vendors every couple of hundred meters along the beach.

"The food is good. Brazilians are lovers of meat and there are restaurants that sell 'as much as you can eat' type menus. Most restaurants work on a 'pay per kilogram' scheme. So you help yourself to a buffet and then have your plate weighed before you sit down. Generally the food was fresh and tasted good.

"The level of grime in the city gives the feeling that it is not a straight-cut first world place. Instead it is bustling with people, everyone seems on a mission to somewhere. There are street cafes everywhere. It is clear that the economy is alive and development is taking place but, depending on where you go, there is also a large amount of poverty. Despite the vastness of the city, most people live in flats which give an indication of the high density of the population.

"Crime is certainly a talking point. The risks we were made aware of included theft, pick-pocketing and kidnapping for ransom, but we had no problems at all throughout our stay. I still think people should be aware of the crime factor during the Olympic Games. Because the Brazilian unemployment rate is relatively high there may be opportunistic crooks about.

"Taxi drivers seemed honest and to our knowledge we were not overcharged, but give clear instructions to the cabbie or get a concierge or host to write your destination on paper for you. Most people only speak Portuguese.

"The language barrier is quite immense. Most people struggle to speak English. If you have some Spanish words people may understand you but most people are proud of their mother tongue, Portuguese. This is because it distinguishes them from the rest of South America who speak Spanish.

"The most talked-about scandal leading up to the Olympics has been the two polluted bodies of water (Guanabara Bay and Rodrigo de Freitas Lagoon) in which athletes will have to compete. There are still no signs of improvement.

"There has been some controversy about countries, such as Australia, who forbade their athletes to go to see the Favelas, which are the colourful shantytowns.

"There are close to one-thousand Favelas in Rio de Janeiro alone. They are especially visible in Rio due to their hillside locations, and they are seen as manifestations of Rio's, as well as of Brazil's, difficulty to cope with socio-economical politics."

Parry said it is fortunate that they had the opportunity to race in Brazil at the same time of year the athletes will be competing during the Olympic Games.

“However, we realize that things will be different during the Games. Logistics are always a challenge, but after analysing all the options I believe we will be much better off and safer in the Olympic village than doing our own thing. In the Village food will also not be an issue.

“Another reason why staying in the Village makes sense has to do with travel arrangements. It will be impossible to navigate the city during the Games. The training and competition venues are far apart, therefore it will not be practical to stay outside the village. If you stay outside it will not be possible to tell how long it will take to travel from point A to B. From the village there will be dedicated transport, so you will have an accurate idea of how long it will take to get to where you need to go.”

As part of the build-up to the Games, Parry is considering to let his athletes compete in a few races in hot conditions.”

“It will be important to do so because the athletes will need to nail down hydration and energy requirements before they compete at the Games. Due to television rights it will be expected of athletes to race in the heat of the day.”

Clark advises the athletes who will compete at the Games become familiar with training and racing in

hot and humid conditions and the resultant changes in fluid demands. For the most part, for athletes in good condition and who have acclimatized, remaining aware of thirst and having sufficient fluid intake options at hand should be sufficient to meet the higher fluid turnover.

“Although it cannot be argued that Rio is a magical destination, it would be best for the athletes to forget about the hype or novelty and not sample the local sights, sounds and food until the business of competition is over. The experienced athletes know this.”

Much has been written and said about the effect travelling across different time zones has on athletes. How big a factor will it be when travelling to Rio?

“The time difference between South Africa and Rio is five hours. The general rule is that for every time zone you cross you need to allow for one day to adapt.

“We monitored the rowers for the week we were in Rio and we found a very similar outcome. Most of the rowers had fully recovered mentally and physically after five or six days there.

“As with any travel across time zones, the major changes one has to look out for on arrival in Rio are in the athlete’s mood sleeping patterns, physical and cognitive performance,

and gastrointestinal changes. Put another way, the wellbeing and performance of athletes should be closely monitored during the days after arrival.

“Some aspects which help athletes’ biological clocks adapt is a well-planned schedule of activities, for example natural light exposure and training sessions early in the morning, and meal and sleep times normalized to the new time zone.”



hpc athletes certain to impact in international sport events

Text: Wilhelm de Swardt | Images: Reg Caldecott

The hpc-sponsored athletes are sure to have a significant impact on South African and international sports during 2016.

With a bit of luck, together with 'big match' temperament, some of them might even be responsible for some "historic" feats.

Seeing that it is an Olympic year, the big question on everybody's lips is whether some the hpc athletes will be able to medal in Rio.

Because there are so many uncontrollable factors that can have an impact on the final outcome of any sports event, this is never an easy question to answer. However, judging by their performances during the past two years, it should be safe to say that Cameron van der Burgh (100m breaststroke); James Thompson and John Smith (men's lightweight double sculls) and Kirsten McCann and Ursula Grobler (women's lightweight double sculls) will be medal contenders.

Since 2007 not a year has gone by without Van der Burgh winning at least one medal, either long or short course, at a World Championships, Olympic Games or Commonwealth Games.

As to what keeps him motivated Van der Burgh said: "At this stage of my life, I am beginning to realize that I will not be able to swim forever. Realizing that it might be my last World Championships, last Olympic Games, and so forth, I enjoy everything a little bit more. This motivates me to make the most of every opportunity that comes my way and what makes it important for me to always perform at my best."

Thompson and Smith were part of the 'awesome foursome' that won gold at the 2012 Olympic Games in London. Two years later they doubled up to win gold in the lightweight double sculls at the World Championships in Amsterdam.

Smith is on record saying: "Training should be the hardest thing you ever do because the harder you train the easier racing becomes."

With a philosophy like this it should be no surprise that Smith has established himself as one of the legends of South African rowing.

He has already won gold medals at the Olympic Games (2012),



the Senior World Championships (2014) and the Under-23 World Championships (2010).

McCann and Grobler won a bronze medal at last year's World Championships in Auguebelette, France. At the Championships in Amsterdam in 2014 they finished 4th.



Grobler says it is important for her and McCann not to become obsessed with winning an Olympic medal.

"The cruel reality in sport is that there are never any guarantees. We need to accept it. All we can do is race our hearts out, knowing that we did all we could to be at our best at the Games. The sacrifices and hard work are worthwhile because of the opportunity we have to live our dream, no matter what happens."

Lebogang Shange has the ability to cause a big upset in the 20km race walk. He has been like a 'meteorite' during the past 14 months, breaking one South African race walking record after the other.



In February he proved that he is capable of holding his own against the best when he finished second at the Australian 20km Race Walking Championships in Adelaide. Shange's time was 1:20:06.

If he can improve by another 20 or so seconds during the next four months he will have a realistic chance of winning the bronze medal in Rio. This should not be a problem because Shange has improved his time in the 20km race by 2 minutes and 15 seconds during the past 12 months.

It is interesting to note that at the Athens Games (2004) the bronze medal was won in a time of 1:20:02; in Beijing (2008) it was won in 1:29:42 and in London (2012) in 1:19:25.

The men's pair rowing crew could cause another surprise in Rio. At the moment (March) there is still no indication of who will be chosen to compete at the Games. However, it should be kept in mind that Shaun Keeling and Vince Breet won a bronze medal at the 2014 World Championships.

Keeling, who represented South Africa at the 2012 Games, has been regularly partnering Lawrence Brittain in January and February. Without taking anything away from the other rowers who are contesting to go to Rio it is worth mentioning that, should Brittain get the nod, it would be like a modern day 'fairy tale'.



He was diagnosed with Hodgkin's disease (cancer of the lymph node) in 2014. But, being a fighter, this was never going to stop him. After months of treatment, his doctor gave him a clean bill of health in February 2015, which meant that he was able to resume his training. Right from day one Brittain made it clear that his aim was to qualify for the Olympic Games in Rio.

Even though it will naturally not be possible for all the hpc-sponsored athletes to win medals in Rio, it certainly does not mean their performances will be irrelevant.

Akani Simbine was already in awesome form in March when he set a new South African record in the 100 metres when he won in 9.96s at the ASA Night Series Event at Pilditch. Suddenly it does not seem that unrealistic for him to qualify for the 100 metres final at the Olympic Games in Rio. It will make him only the fourth South African men's sprinter to do so.



Reggie Walker won the gold medal in 1908 in London while Wilfred Legg finished 5th in 1928 in Amsterdam and Danie Joubert was 5th in 1932 in Los Angeles.

Carina Horn is another hpc athlete who might be able to do what has never been done before in South African athletics, namely to run a time faster than 11 seconds in the women's 100 metres.

In Madrid last year, when she equalled Evette de Klerk's 25-year-old South African record of 11.06s, she proved that once she has made up her mind to achieve a specific goal, she does not give up before she has done it. She has already improved her 60 metre time in indoor athletics to 7.19s, which is merely 0.04s slower than Wendy Hartman's record of 7.15s (1999).

Other possible highlights from hpc athletes to watch out for in 2016:

** Lindsey Parry predicts that Irvette van Zyl could improve on the South African women's marathon record of 2:26:35, set by Colleen de Reuck in Berlin on 29 September 1996.

**Another great hpc result will be if Caroline Wöstmann could successfully

defend her Comrades title. Last year she became the first South African female athlete since 1998 to win the legendary ultra-race.

Another interesting statistic was that Wöstmann has become only the fourth athlete ever to win the Two Oceans and the Comrades in the same year. It seems

as if she is not planning to defend the Two Oceans title this time round but it will be a surprise if she does not win a gold medal.

**Charné Bosman finished second in last year's Comrades. It was the first time since 1993 that two South African women finished first and second. Bosman's main focus will probably be to win this year's Two Oceans and try for another top three finish in the Comrades.



**Wenda Nel caused quite a stir last year when she qualified for the 400-hurdles final at the World Championships in Beijing. It will not be a surprise if she does so again in Rio. Nel is one of the athletes who consistently improve on her best time. Last year she ran 54.37s.



**With consistent top-three finishes in the Diamond League, LJ van Zyl (South African 400-hurdles record holder) proved last year that he has lost none of his 'mojo'. He has won medals at the World Championships, Commonwealth Games, African Championships and SA Championships. The only medal he needs to complete his personal collection is an Olympic medal. It will be a tall order for him but then again Van Zyl is a seasoned 'war horse' who can never be written off.



**The performances by Brandon Stone and Zander Lombard in the European Golf Tour early this year, have proven that the coaches at the Tuks Golf Academy are definitely doing something right.

Stone won the BMW SA Open at Glendower in January and a week later

Lombard (Tuks/HPC) finished second in the Jo'burg Open at the Royal Johannesburg and Kensington Golf Course.

Lombard finished jointly 7th in the Tshwane Open with Stone jointly 10th. The safe bet would be to say that they will definitely have an impact on another one or more of the Tour's tournaments.



In his football playing days Shaun Bartlett has learned to master the art of outfoxing his opponents to score vital goals. Having scored 28 goals in 74 appearances, he is the 2nd all-time leading scorer (behind Benni McCarthy) for the South African national football team. In his current capacity as coach he attempts to pass on these skills to the next generation of players.

In January Bartlett has been appointed as the new coach for AmaTuks. His appointment is certainly one of the toughest challenges of his football career because the team is involved in a battle for survival in the Premier League. But Bartlett, who has never been one to shy away from a true challenge, is not too fazed about it.

“My appointment definitely surprised me as it did the whole of South Africa. Having been successful the previous season, I am sure no one expected me to take on a team which is in a relegation battle.

“Everything in life comes with a challenge. However, through proper planning, good organisation and training that is aimed at winning, things can be changed. We as a team have set definite targets and I am confident that we will be able to achieve them. But we need a first victory to build on.

“My main reason for going into coaching was to use my knowledge and the experience I have gained, not only to improve the standard of players in this country but also to produce better men for our country. This risk has so far paid off. I am fully aware that becoming a coach can ruin everything you have worked for as a player in a matter of minutes,” said Bartlett who was assistant manager for the Golden Arrows before accepting the AmaTuks appointment.

“Before I even touch anything regarding the game, I always try to affect the mental state of the players. To be able to achieve anything as a team it is important that we first earn each other’s trust. My principles in life will never change or be compromised and the beliefs and values of a coach can make or break him.”

Bartlett was raised by his grandmother in Facticeon on the Cape Flats. He began his football career by playing for his church team and quickly developed a deft striking ability on the field.

“Because of my family background football was pretty much part of my upbringing. I am glad my uncles got me into the game because it was an outlet away from gangsterism and drugs. I made my professional debut for Cape Town Spurs in 1992 and I scored my first goal against Moroka Swallows.”

Bartlett considers playing for Bafana as very special. Definite highlights were being part of the team that won the African Nations Cup in 1996 and representing South Africa at the 1998 FIFA World Cup in France where he scored two goals for the team.

“I was disappointed when, after having played in all the qualifying games, I missed out on the 2002 World Cup in Japan/South Korea because of an Achilles rupture.

In response to a question about his passion for soccer Bartlett said: “I wouldn’t say that I have committed my life to soccer. It will probably be more correct to say that soccer chose me. It offered me a way out of the poor areas I grew up in. I was blessed to have had a career at the highest level for more than 17 years and to be paid for something I loved doing.”

Who had the biggest influence on your soccer career?

“It is always very difficult to pinpoint one individual, but when it comes to

someone who has changed my whole life it has to be Nelson Mandela. Not only did I have the honour of having the great leader of this country at my wedding, but the way he conducted his life was an example for every young person who grew up in South Africa during the 90’s to go out and achieve the goals he has set for himself.

“I am very grateful for the support I have received from my family and later also from my wife, Juanita, and my sons, Tyrique, Alonzo and Cameron, throughout my playing days and also now that I am a coach.

A lot has been said and written about the state of South African soccer, especially about Bafana’s dismal performances over the past decade.

Bartlett is of the opinion that Bafana’s decline is something that occurred over the past few years.

“It pretty much started when we won the African cup of Nations in 1996 here in South Africa. No plan has ever been put into place to develop younger talent to a level where they would be able to not only compete in Africa but on the world stage as well.

“Even with hosting the 2010 World Cup in South Africa we still didn’t capitalise on that success by working towards leaving a legacy for the next generation to come. Proper development structures are desperately needed to channel the talent we have available in this country.”

Asked about what he does to relax and to forget about soccer and its challenges Bartlett said: “Like most South African sportsmen I started playing the game of golf after my playing career. I enjoy the challenges offered by golf and it is also a great way of keeping in contact, not only with former soccer players but also with players in other sporting codes. Golf also gives me the opportunity to raise funds for charities in our country. I also play tennis and cricket and like to take part in mountain biking as well.”



Shaun Bartlett *Text: Wilhelm de Swardt | Images: Reg Caldecott*



If you are a female athlete who desperately wants to improve your running times, here is some good advice. Become pregnant and your life will change for the better.

If this sounds like just another tall story, talk to the Olympic athlete, Irvette van Zyl. She will tell you how her life has been changed since the birth of her son, Louis, last September.

Using too many adjectives when trying to describe an athlete's performance often ends up being a bunch of meaningless clichés, but it does seem obvious that Van Zyl's running exploits will keep South Africans talking this season.

The Nedbank athlete started her season by running best times at altitude in the 10km as well as the 21km. In fact, her winning time of 1 hour 12 minutes and 20 seconds at the Johnson Crane 21km in Benoni was the fastest time ever by a local female athlete at altitude. In Pretoria, a week earlier, she ran another personal best when she won the George Claassen 10km in a time of 33 minutes and 32 seconds. She then went on to win the Bestmed Tuks 10km in the not too shabby time of 33:55.

Because of these consistently good performances her coach, Lindsey Parry, predicted that she may be able to improve on the women's marathon record of 2:26:35, set by Colleen de Reuck in Berlin on 29 September 1996.

Van Zyl says without hesitation that becoming a mom has changed her life for the better, not just as an athlete but also on a personal level.

"I will admit that I was a bit down in the dumps when I first found out that I was pregnant, but after Louis's birth I realized that being mom is very special. There is nothing more exciting than watching him change, physically as well as emotionally, almost on a daily basis.

"Personally I think it is good for a female athlete to become a mum. It gave me a totally new perspective on life. I have become more disciplined and less selfish. Running is still very important to me but I hate to be away from Louis for long periods at a time. Every moment I spend with him is special. Being parents has certainly also improved the relationship between LJ (Olympic 400-hurdler) and me. We share an exciting new 'adventure'.

"From an athletic perspective becoming a mom has also been good. My pregnancy has taught me to understand my body better. I know now that I have to stay within certain limits and I have become more responsible in the way I train and race. That is why I am, for the first time in quite a few years, injury-free at the moment."

The new mom has her work cut out every day. The days when she has to work through a gym session before going to run in the afternoon are especially hectic.

She normally gets up early in the morning to go for a run at five. Back home she switches from being an athlete to becoming a mom and prepares Louis for his day. Van Zyl

describes this as her 'special time'.

"LJ and I have worked out a programme that gives both of us time to do the training we need to do every day without ever neglecting Louis. But at times it becomes a tricky balancing act."

At the time of writing the plan was for Van Zyl to make an attempt on the South African marathon record at the London Marathon (24 April).

"I like it when Lindsey sets me a goal, providing that we both keep in mind that, whatever the goal is, it should never become an obsession. I will give it my best shot but if that is not good enough on the day, so be it. There will be other opportunities to go for the record."

Van Zyl aims to try to qualify in the marathon as well as the 10 000 metres for the Olympic Games in Rio. Because she is slightly worried about the humidity in Rio, she has a preference for the 10 000m. Informed people warn that the humidity can take its toll on the athletes. In spite of having run a best time of 2:31:26 in the 2013 London Marathon, Van Zyl still considers herself to be a novice when racing the longer distance. She would prefer to gain more experience before seriously challenging for a medal at the Games.

But for the moment Van Zyl does not want to dwell too much on what could happen at Rio.

"I first have to qualify in either the 10 000m or the marathon or both. Only after I have managed to do that, Lindsey and I will decide what will happen at the Games and then the serious training will start. If I do qualify in the marathon I will still compete in the 10 000m because it is good training for the marathon."

Van Zyl said being in such good racing form can be frightening.

"The problem is that I tend to run faster than planned because I feel so good and this is not advisable. I will have to focus on running more conservatively in less important races to reserve my energy for the races that really matter. Doing so is not always easy. Over the last 5 kilometres of the Johnson Crane 21km I could not resist the temptation to catch up and pass quite a few male athletes. This meant that I ran faster than I should have.

Apart from qualifying for the Olympic Games and racing well in Rio, Van Zyl's other big goal is to run a good race at sea level.

"So far I have run good times at altitude, which led to people speculating about what my time would have been if I had run at sea level. Some experts subtract a minute or two from my times to get an idea, but that is never accurate. The only option for me is to run a good race at the coast to bring an end to the speculation."

Being a mom changed Irvette's life for the better

Text: Wilhelm de Swardt | Image: Reg Caldecott





Gézelle Magerman

aiming to win second medal at major championships

Text: Wilhelm de Swardt | Images: Reg Caldecott

“One swallow does not make a summer.”

Fortunately, this well-known English idiom is not always true. There are times when only one little swallow is needed to bring summer to an entire country.

When Gézelle Magerman won the 400-hurdles at the 2014 Youth Olympic Games (under-18) in Nanjing, China, there was a sense of great relief in South Africa. Up to Magerman’s final race it seemed as if the South African Team was not going to win any medals.

Magerman turned out to be the lone athlete to fly the South African flag. Earlier the same year South Africa’s junior athletes failed, for the first time ever, to win a medal at the IAAF Junior World Championships in Oregon, Eugene. Not winning a medal at either of the two major junior events

would have been catastrophic but, fortunately, South Africa’s honour was saved by Magerman.

The big question is whether Magerman will again be able to step up to the proverbial plate when it really matters when she competes at the IAAF Under-20 World Championships in Bydgoszcz, Poland (19-24 July).

If she does medal she will join a small elite group of South African junior athletes who were able to get top-three finishes at two different international meetings (World Championships and Youth Olympics).

Magerman is up to the challenge. She makes no secret that she hopes to improve on her best time of 57.91s by about two seconds this season. If she manages to do so she should have a realistic chance to medal in Poland.

She matriculated at La Rochelle Girls High School in Paarl last year.

“The reason why I decided to come to Pretoria is because it seemed to be hurdling ‘mecca’ of South Africa with all the best coaches and athletes being based at Tuks.

“I am being coached by Irma Reyneke and Wenda Nel (finalist at last year’s World Championships) is at times one of my training partners. This means that I have somebody against who I can measure myself and I find this exciting. I love to have somebody to chase or to be pushed to my limits.”

Magerman says that to be able to run faster times she needs to work on increasing her speed over the first 200 metres of the race.

“I am too slow over the first 200 metres, which means that I always end

up playing catch up during the second half of the race.”

She is not exaggerating. At the Youth Olympics final it looked as if she was ‘crawling’ during the opening 100m. When going through the last bend and into the home straight she was lying seventh but she moved to fifth position before the ‘afterburners’ kicked in. When that happened it seemed as if the rest of the field was frozen to a standstill in the glow of the Olympic flame, allowing Magerman to blast past her rivals for what was eventually a pretty easy win.

She won in 57.91 seconds, improving on the SA youth record set by her role model, Helene Swanepoel, at the 2013 Youth World Championships (under-18).

“Helene has been my role model ever since she won the 400-hurdles at the IAAF World Youth Championships in Donetsk, Ukraine, especially because she is also from Paarl. She proved to me that the sky is the limit if you really put your mind to it.”

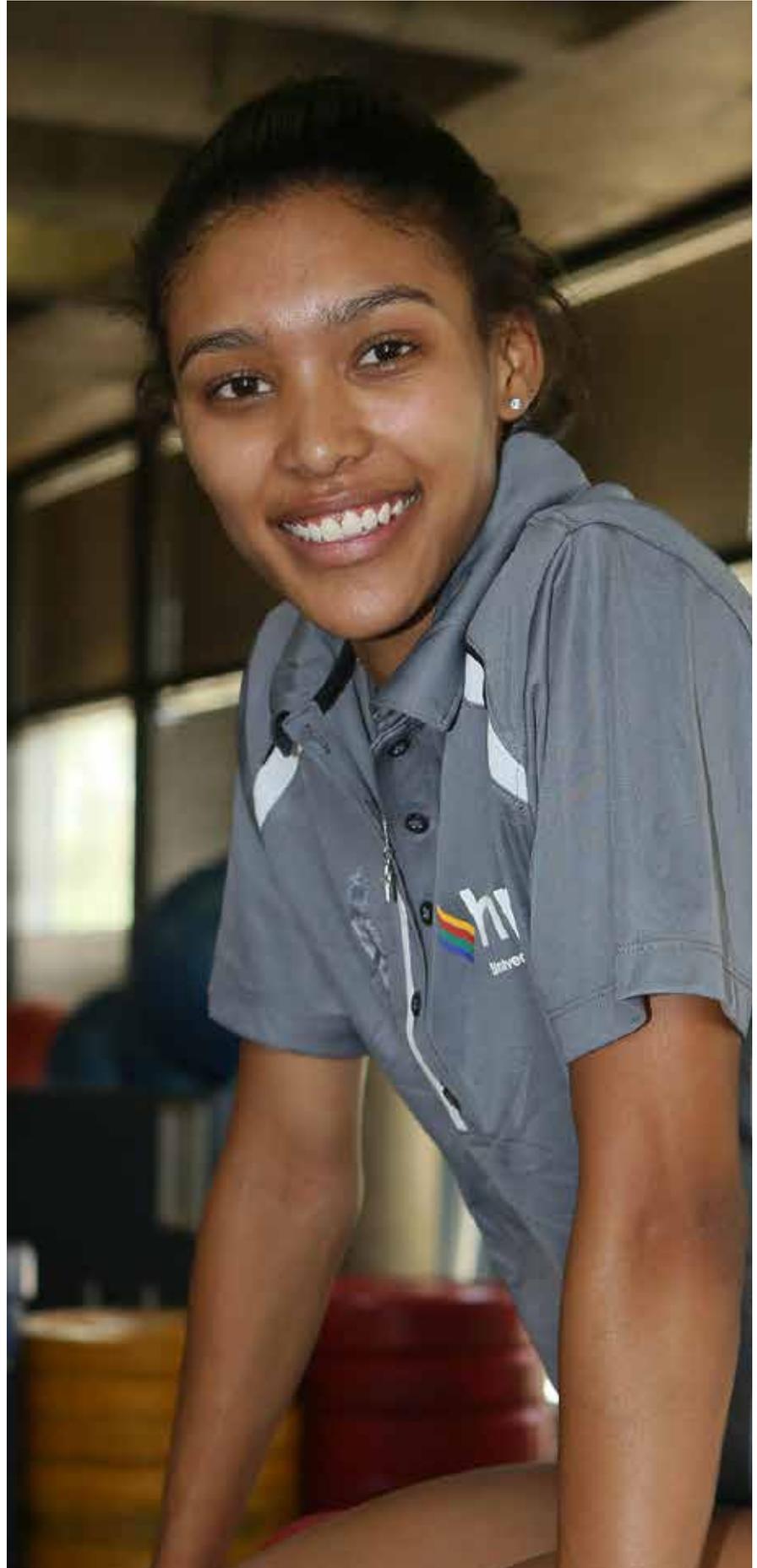
Netball used to be Magerman’s other great sporting passion, but for the moment she is semi-retired from netball to be able to focus only on athletics.

She was also a talented long jumper. In 2014 she won a silver medal in the long jump at the South African Junior and Youth Championships as well as a gold medal in the 400-hurdles.

According to Magerman she a ‘sports nut’.

“I am studying BSc sports science because I would love to make a contribution to the betterment of sports in South Africa.”

But right now her focus is only on hurdling. She has a lot on her plate because not only does she want to improve her time, her focus is also set on winning a hat trick of medals at the three different national championships (SA Senior, SA under-20 and SA Students). And then there is the ‘big one’, which is winning a medal at the World Under-20 championships.





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For many athletes the summit of their sporting journey is participating and performing to their best at the Olympic Games. Many prepare for a long time to get there, with few being afforded the opportunity to go, and even less gaining the chance to go for a second time.

In an attempt to look towards the preparation for Rio 2016, a research article by Gould and Maynard (2009) on the psychological preparation for the Olympic Games offers some insight into the diverse aspects that play a part in success at the Olympic Games. Everything at the Olympics is a performance issue. The Olympics are looked at in one way only, it's about performance. The Olympics are different that other major sporting events because it is multi-sport event that takes place every 4 years. It is long in duration and draws extensive media attention.

What has been revealed in the research is how broad the nature of preparation for attending an event such as the Olympic Games really is. It is likely impossible to fully prepare from all angles and for all possibilities, and athletes have to be aware some adaptation to unexpected issues will be needed, but preparing well for some of these will likely leave you less overwhelmed and able to focus on the main reason you are there, competing.

Out of a comprehensive list the following have been identified as our top 8 areas where psychological preparation is both possible and will assist in more likely success for Olympic hopefuls.



Distraction preparation.

Distractions are inevitable at the Olympic Games. The research points to feeding of the Olympic excitement while avoiding the potential distractions is a key to success. Some of the common potential distractions, some addressed in more detail below, watching other events, arranging tickets, the opening ceremony, the frenzy surrounding the Games, and other athletes, especially those who might have finished competing. The influence of the media as well as social media (Facebook and Twitter) can act as potential distractions because there is such a fine line between this being supportive but also adding extra pressure and expectations. The expectation to deal with the media and messages via social media immediately and continuously is often experienced as stressful.



Self- and team confidence.

Many athletes have reported the effects of self-confidence on their performances at the Olympic Games. Confidence enhancement strategies will be paramount in your preparation. Another aspect to be considered here is the team's confidence. In team sports the performance will be dependent on all team members' confidence. Have you considered how you will deal with your own confidence and performance if some of your team mates' confidence is challenged? In individual sports, have you considered how you will deal with being around other athletes who either do really well or poorly? Interaction with the other athletes is inevitable and the atmosphere created will impact you as well.



Team cohesion and harmony.

In both individual and team sports, the research has indicated that team cohesion and harmony with a single minded focus on achieving success has had a positive impact on success. Creating an atmosphere where the people around you are supportive and enhance your focus for success will influence performance positively.



Coaching (and support personnel).

The coach-athlete relationship seemed to be a critical factor, whether it was an appointed team or personal coach. During the stressful time leading up to the Olympics for both coaches and athletes, taking the time to uphold or even build the relationship will be time well spent.

psychological preparation for Rio 2016

Everything at the
Olympics is a
performance issue

Text: Maurice Aronstam and Dr Monja Human

5 Team training / residency programmes.

Often it is thought that athletes are only away from their loved-ones for the month-odd period of the Olympics. What is often not considered is the amount of time athletes are in training in the build-up to the Olympics. Many sports hold camps that require them to be away from home well in advance of the actual Olympic event.

6 Family / friends.

Family and friends who are seen as being a source of support for the athlete had positive effects on performance while family or friends that were deemed a distraction had a negative impact on performance. Clarifying what behaviour is supportive will be important for athletes and coaches. How athletes will communicate with family and friends might need to be planned and voiced. Imagine the distraction for the athlete when a family member sends a message saying you have not replied to my well-wishes. Plan and tell people when, and if, you will be able to communicate with them. Tickets and access to competition venues will also have to be planned for and sorted out well in advance.

7 Equipment concerns.

The confidence an athlete has in their equipment and the access to their equipment can be a positive factor influencing performance. Travelling with sufficient equipment might also be backed up with some research into how you could solve unforeseen equipment problems when travelling to a foreign country.

8 Environmental influences.

Many environmental factors need to be considered at the Olympic Games, with some factors being very difficult, if not impossible to control. The efficiency of transport was seen to influence performance. Planning travel if possible, but also some contingency ideas for transport difficulties or passing time while travelling might help an athlete stay focussed and well prepared. The nature of the opening ceremony and your involvement in it might need to be considered when your events are very soon after the opening. Accommodation is another factor that one needs to have planned for. The location of your room, especially if you are staying in the Olympic Village might present with little privacy or high noise levels. Considering how you could ensure good rest and privacy will certainly go a long way in giving yourself the best chance for performance.

In summary, if you are a Rio 2016 hopeful, an aspiring Olympian of the future, or an athlete in a non-Olympic sporting code but aim to attend a large-scale international competition, hopefully some insight into the varied areas all affecting performance allows you to adequately prepare for such events.

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SPORT PSYCHOLOGY Department

ADVENTURE-BASED LEARNING AND DEVELOPMENT PROGRAMMES

How does it work?

It is based on the principle of learning through experience. It typically includes creating an experience, then reflecting on that experience, and finally knowledge is gained by transforming the experience into something that can be applied in future real-world situations.

Adventure-based activities:

- **Low ropes course:** incorporating various challenges that take place on or a short distance off the ground.
- **Amazing race:** incorporating a combination of problem solving and decision making challenges as part of a set course to be completed.

What is adventure-based learning?

It is the use of adventure-based activities for learning, focussing specifically on personal and team development.

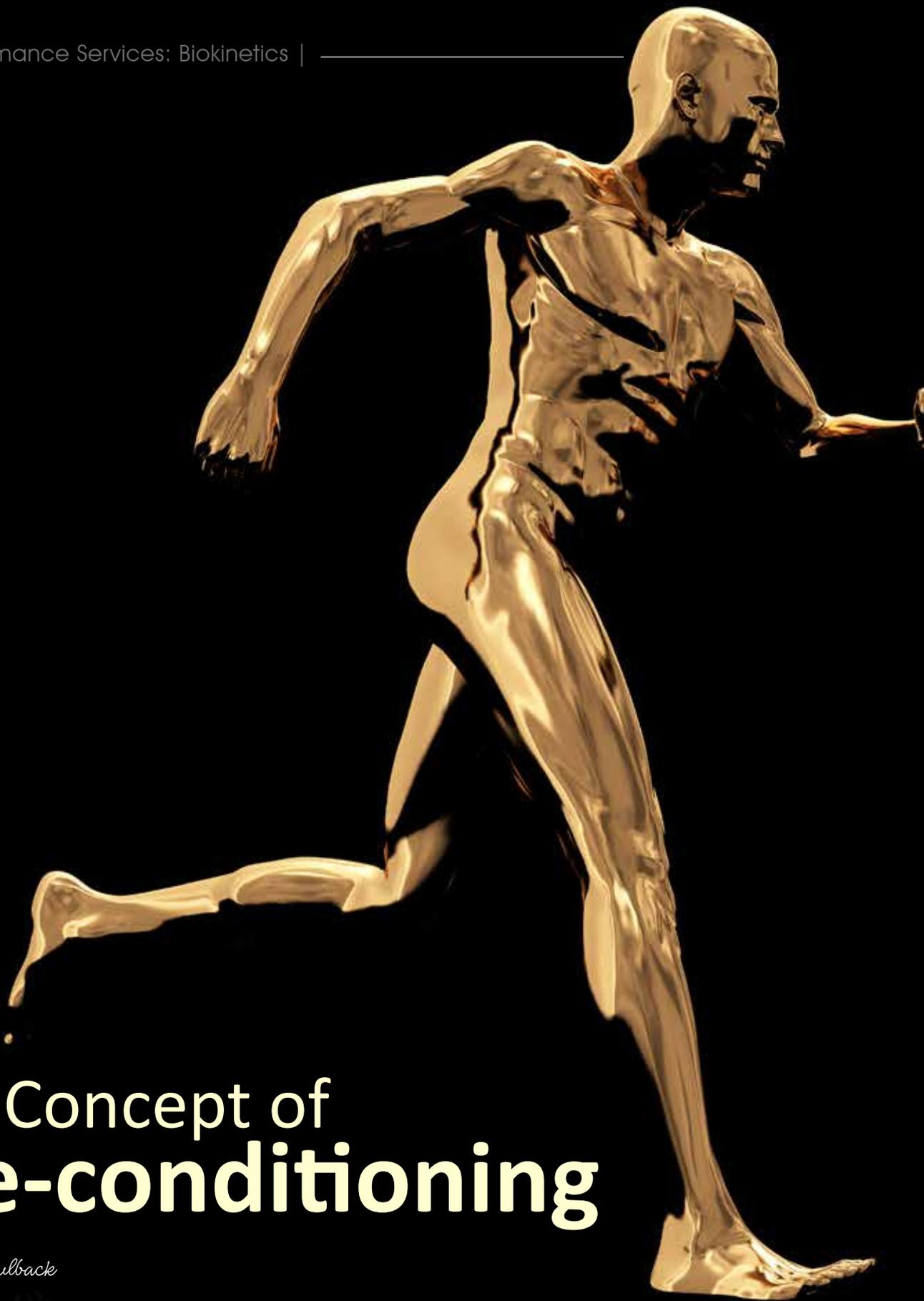
What are the benefits?

- Shared knowledge and collaborative learning from all members in the group.
- Breaks away from the norm of passive learning through lectures and notes.
- An opportunity to apply knowledge rather than just recite knowledge.
- To modify behaviour to improve your effectiveness.

Description of Shadowmatch:

Shadowmatch is a tool that measures behavioural habits and compares these to a benchmark of the top performers in that specific environment. Behavioural patterns are crucial in developing competency in executing of a person's skills. Shadowmatch allows for the prediction of whether the situation will allow a person's habits to function optimally, allowing all energy to be used in executing of skills and developing competency.

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The Concept of **Pre-conditioning**

Text: Kelly Kaulback

In conceptual terms, 'pre-conditioning' means to condition, train, or accustom in advance. Conditioning is a process in which stimuli are created by an exercise programme performed by the athlete to produce a higher level of function. The goal of conditioning is to optimize the performance of the athlete and minimize the risk of injury and illness. Designing a preconditioning programme is a dynamic process when accounting for all the variables in training.

The following read aims to provide an overview of general conditioning considerations. Moreover, the *importance* of preconditioning and injury prevention aim to gain notification, particularly in preparation for events such as the Olympic Games, fast approaching in Rio 2016.

Let's take a look at some general conditioning principles:

• **Specificity**

Training adaptations are specific to the nature of the exercise stimulus (e.g., muscle contraction type, mechanics, metabolic demand). Athletes are subject to specific demands in the performance of sport. Therefore, performance is dependent upon the individual athlete's ability to meet those demands.

• **Progressive Overload**

A conditioning programme should begin at a tolerable level of exercise and progress in intensity and volume toward a targeted goal for the individual athlete.

- *Intensity* is the percent of the maximal functional capacity of the exercise mode (e.g., percent of maximal heart rate, percent of one repetition maximum).
- *Volume* is the total amount of exercise performed in specific periods of time (e.g., total distance run, total amount of weight lifted.)

• **Prioritization**

Priorities should be developed according to the individual's capabilities and sport-specific demands, because not all elements of a conditioning program can be optimized at the same time, rate, or magnitude.

• **Periodization**

Periodized training is planned variation in the total amount of exercise performed in a given period of time (intensity and volume of exercise). All periodization terminology describes either a certain type of training, a certain portion of a training cycle, or a certain length of time within a training cycle. Research supports periodization as an important repercussion to the principle of progressive overload, as this type of planned variation is key to optimal physical development. Periodized training has shown greater improvements compared to low-volume, single-set training. Such training programs have been shown to be very effective during both short- and long-term training cycles, while reducing the risk of overtraining. Several combinations of variables may be manipulated in order to produce an adaptation specific to training goals.

• **Sport-Specific Conditioning**

Sport-specific conditioning is the preparation of the athlete for unique physiological and biomechanical demands and the injury risks inherent in each sport.

- Physiological demands (e.g., anaerobic/aerobic, environmental).
- Biomechanical demands (e.g., throwing, running).
- Injury risks (e.g., site-specific, traumatic, overload, age and gender-specific).

Performance Sports conditioning can be described as a pyramid of fitness and skills:



- *General athletic fitness* serves as a base for sport-specific fitness and includes total body flexibility, total body muscular strength and power, cardiorespiratory endurance and body type, size, and structure.
- *Sport-specific athletic fitness* addresses physiological parameters, biomechanical actions, anatomical sites, and muscle activation patterns common or essential to the individual sport. These components are addressed through specific flexibility, strength balance, power/work, and aerobic/concentric training.
- *Sport-specific skill* is the ultimate goal. Optimal performance demands a refinement of unique training and skill acquisition.

The concept of pre-conditioning and the general principles have hopefully now gained clarity. But how does preconditioning, hereafter otherwise translated as ‘injury prevention’, have significance in the lead up to an event such as the Olympic Games? Engebretsen, *et al.*, (2013) provide some facts and figures from the last Olympics in London (2012) that corroborate the need for attention to injury prevention interventions.

In total, 10 568 athletes took part in the London Olympic Games 2012. Of these, 4676 were women (44%) and 5892 men (56%). Among these athletes, a total of 1361 injuries were recorded, equalling an overall injury rate of 128.8 injuries per 1000 registered athletes. On average, 11% of the athletes sustained at least one injury.

A total of 482 (35%) injuries were expected to prevent the athlete from participating in competition or training. It was estimated that 246 (18%) injuries would result in an absence from sports for 1–3 days, 62 (5%) in an absence for 4–7 days, 105 (8%) in an absence for 8–28 days and 69 (5%) in an absence for more than 28 days. A total of 174 injuries (13%) entailed an estimated absence from training or competition for more than 1 week. These injuries were 10 shoulder, elbow and knee dislocations (in hockey, football, judo, BMX and weightlifting); 38 muscle strains, of which 24 were thigh strains (mostly in athletics); 24 fractures (mostly in team sports; all body locations) and 6 stress fractures (4 in running events); 8 Achilles, knee and shoulder tendon ruptures (in athletics, badminton, handball and basketball); 47 ligament sprains (across all joints and sports) and 15 knee sprains, including 6 ACL and 1 PCL ruptures (in fencing, handball, judo, wrestling, badminton, table tennis, tennis and football).

The four most commonly reported injury mechanisms were overuse (n=346, 25%), non-contact trauma (n=275, 20%), contact with another athlete (n=197, 14%) and contact with a stationary object (n=164, 12%) (Engebretsen, *et al.*, 2013).

The high prevalence of injury at such events is imminent, however, with effective preconditioning the athlete can at least prepare themselves physically in the best way possible to safeguard against injury occurrence to some extent.

Conditioning may decrease injury and illness by influencing sport-specific risk parameters (e.g., acclimatization, site-specific flexibility, strength, balance, force production of muscle). Factors such as physical fitness, muscle strength, motor abilities and sports specific skills are highly trainable. Most of the training programmes designed for the prevention of injuries aim to influence these risk factors by enhancing athletes’ intrinsic abilities.

Effective training multicomponent interventions include combined elements from both strength and power, and balance and coordination training. For example, from a more Biokinetic point of view, balance training can improve both static and dynamic balance and enhance postural control during sports which may reduce the risk of injury, and moreover likely improve neuromuscular control.

Effective training programmes require carefully planned injury specific exercises and the programmes need to be adjusted to the injury problem within the target population at hand. In addition, one major issue concerning the effectiveness of any intervention is compliance to the intervention. Knowing that high compliance can further reduce injury risk, the challenge is how to motivate athletes and their coaches to follow an injury prevention program.

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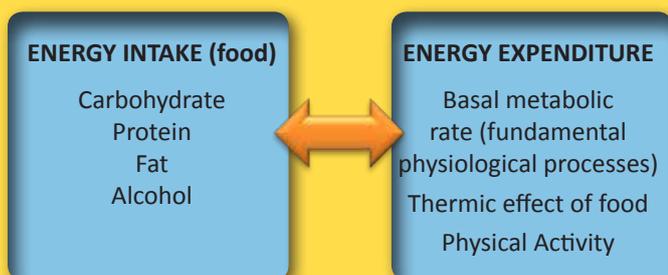
Ensuring optimal energy availability

Text: Nicki de Villiers, Registered Dietitian, hpc

Recommendations regarding the achievement of an energy balance have always been emphasized to assist optimal training and competition performance. Energy balance is although often compromised by athletes in attempt to modify their body size and composition in attempt to achieve performance goals. Whilst compromising optimal energy balance, athletes should pay careful attention to dietary intake and exercise regimens to avoid compromising health.¹

Moving from energy balance to energy availability....

Energy expenditure in athletes consists of much more than the energy spent during exercise. Energy obtained from dietary intake is firstly expended during several fundamental physiological processes, including cellular maintenance, thermoregulation, growth, reproduction, immunity and movement. In athletes further energy is then needed for energy expenditure during training which may be double or even more than the amount spend on day-to-day locomotion.¹



Energy availability (EA) is the amount of dietary energy remaining to support remaining metabolic systems in the body after the energy cost for a particular system has been removed. In the case of athletes, energy availability is the amount of energy remaining to support all other body functions after the energy expended in exercise and sporting activities (EEE) is removed from energy intake.^{1,2}

$$EA = EI - EEE$$

The amount of energy remaining after accounting for the energy expenditure during exercise therefore accounts for the available energy as a source of input into the body's physiological systems.¹ Low energy availability occurs when an individual's dietary energy intake is insufficient to support the energy expenditure required for health, function and daily living once the cost of exercise and sporting activities is taken into account.²

Compared to energy availability, **energy balance (EB)** is defined as dietary energy intake minus the total energy expenditure per day (TEE), consisting of energy used for daily physiological processes and physical exercise.¹ Energy balance is therefore an indicator of the amount of dietary energy added to or lost from the body's energy stores after all of the body's physiological systems have completed their work for the day.²

$$EB = EI - TEE$$

Energy balance can therefore be positive or negative and therefore indicates the amount of dietary energy added or lost from the body's energy stores over a particular time. The energy balance therefore serves as an output measure.¹

An energy balance of 0 kcal indicates an energy balance in healthy individuals when EA = 45 kcal/kg fat free mass

The interference with these simple facts is although that, in times of a prolonged negative energy balance ($EI < TEE$), the body slows various physiological processes to achieve energy balance. Less energy will therefore be allocated to body processes to decrease TEE in order to achieve energy balance in periods of low energy intake (low EA). This adjustment may lead to a disruption in various hormonal, metabolic and functional characteristics,^{1,2} leaving the prediction of energy needs unreliable.

Energy balance is therefore a questionable measure for managing an athlete's dietary intake and adequacy,¹ and

low energy availability can occur even in the scenario where energy intake and total energy expenditure are balanced (i.e. there is no energy deficit),² but is your body functioning at an optimal level?

Relative energy deficiency in sport (RED-S)

Relative energy deficiency in sport (RED-S) refers to impaired physiological functioning caused by *relative energy deficiency* and includes, but is not limited to impairments of metabolic rate, menstrual function in females, bone health, immunity, protein synthesis and cardiovascular health.²



Various factors can contribute to an energy deficiency in athletes:

- (i) Athletes can present with disordered eating or obsessive eating disorders associated with mental illnesses.^(1,2) A disordered eating continuum starts with appropriate eating and exercise behaviours with short-term extreme restrictive diets (< 30 kcal/kg FFM) and progresses along the continuum towards a clinical eating disorder characterised by abnormal eating behaviours, distorted body image, weight fluctuations, medical complications and variable athletic performance. Various factors play a role in the development of eating disorders, e.g. cultural, familial, individual and genetic or biochemical factors. In athletes, sport-specific factors can also contribute for example dieting to enhance performance, personality factors, pressure to lose weight, frequent weight cycling, early start of sport-specific training, overtraining, recurrent and non-healing injuries, inappropriate coaching behaviours and regulations in some sports.²
- (ii) Athletes can alternatively have a deliberate, rational approach to lower energy intake in attempt to reduce body size and fat percentage. This approach can although be mismanaged due to a lack of knowledge or skills.¹
- (iii) Athletes can lastly fail to increase their energy intake to compensate for energy expenditure during exercise, especially in times where training volume or intensity is increased. The failure to increase energy intake may be attributed to the suppression of appetite by prolonged exercise.^{1,2}

In spite of the cause of a relative energy deficiency in athletes, low energy availability may impact on several metabolic and physiological processes and systems.

Low energy availability influences hormone levels. It may contribute to menstrual disorders in female athletes attributed to an oestrogen deficiency. It may also alter levels of other metabolic hormones and substrates, for example insulin, cortisol, anabolic and thyroid hormones.²

The influence of low energy availability on oestrogen and progesterone levels impacts on bone formation. Oestrogen plays a role in the increased uptake of calcium into the blood and eventual deposition into bone, while



progesterone facilitates the actions of oestrogen. Low EA may cause oestrogen/progesterone imbalance that result in negative change in bone. In males and females, testosterone has anabolic effects on bone through an increased bone formation and calcium absorption. Low testosterone levels have been associated with low bone mineral density in male athletes. Low energy availability further increases stress hormones that can negatively influence bone mineral density. Changes in bone structure contribute to an increased risk of stress fractures. Dietary insufficiencies further increase the risk of stress fractures. Additional risk factors include menstrual dysfunction, compulsive exercise, underlying poor bone health, low body mass index, prior fractures and eating psychopathology.^{1,2}

Muscle protein synthesis is dependent on energy availability and may be reduced even at an EA of 30 kcal/kg FFM.² Low energy availability can contribute to a lowered insulin secretion which can decrease amino acid uptake resulting in impaired anabolic processes, including muscle mass increase.¹

Low energy availability may further have a negative on the immune system of the athlete, making them more vulnerable for viral attacks. The intake of sufficient energy and nutrients is vital to support immune function.^{1,2}

Low energy availability further causes an unfavourable lipid profile and endothelial dysfunction that may contribute to cardiovascular risk. Hormonal and metabolic abnormalities associated with relative energy deficiency combined with carbohydrate deficiency can result in impairment of glucose utilisation, mobilisation of fat stores, reduction of metabolic rate and a decreased production of growth hormone.²

Athletic Performance

RED-S can potentially affect athletic performance. Functional impairments associated with a low energy availability include a greater prevalence of viral illnesses, injuries and most critically reduced responsiveness to training and subsequent performance.²



Practical Implication

Advice to athletes

- Appetite may be an unreliable indicator of energy requirements of athletes partaking in prolonged exercise training. Athletes should therefore aim to eat by discipline instead of hunger. They should eat specific amounts of particular foods at planned times. Periodization of training may require the athlete to periodize energy availability to support training efforts.¹
- Athletes should attempt to achieve an energy availability of at least 30 -45 kcal/kg FFM while training to reduce body size or fatness.¹ Adequate energy availability can be achieved through an increased energy intake or decreased energy expenditure or a combination of both. Energy intake can be increased through the additional intake of an energy-rich supplement to achieve an initial increase in energy intake of ~300 – 600 kcal/day. Energy intake should be distributed throughout the day with emphasis on intake around exercise sessions.²

Calorie Content of Food		
Food	Serving Size	Calorie Content (kcal)
Low fat milk	1 cup (250 ml)	102
Fresh Fruit	1 medium (150 g)	72
Bread	1 slice	67
Rice	½ cup	102
Pasta	½ cup	110
Chicken drumstick	1 average	105
Peanut butter	1 Tbsp	94
Egg	1	74
Jam	1 Tbsp	56
Orange juice	1 cup (250 ml)	112

- Athletes should aim to optimise calcium intake to achieve an intake of 1500 mg of calcium per day. This can be achieved through the intake of food sources, especially milk and milk products (4 servings per day). Supplemental intake can be used if necessary due to inadequate intake of dietary sources.²

Calcium Content of Food		
Food	Serving Size (g)	Calcium Content (mg)
Milk	240	300
Red Beans	172	40.5
White Beans	110	113
Broccoli	71	71
Spinach	85	85
Sweet Potato	164	44
Rhubarb	120	172
Tofu with calcium	126	258
Sardines with bones	56	217
Salmon with bones	56	135

- Athletes should develop realistic and health-promoting goals related to weight and body composition.²

Advice to coaching and support staff

- Less emphasis should be placed on weight. Rather emphasise optimal nutrition and health as means to enhance exercise performance.²
- Avoid critical comments about an athlete's body shape/weight.²
- There should be awareness that good performance is not necessarily synonym with health.²

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Golf Strength and Conditioning:

What it means for the recreational golfer.

Text: Gavin Groves, Strength and Conditioning Specialist, hpc

As a Golf Strength and Conditioning specialist, I often speak to parents and people within the golf industry around what my function is at the HPC, and exactly how TPI works and the application to golf. Inevitably, the discussion will revert back to the parents' own golf game, and their state of physical fitness (or lack thereof) and how they know it affects their golf. The concerns around golf include consistency, back pain, low energy levels and golf performance. At some point, the parent or golfer will ask whether I would be able to help them. This question leads me to believe that perhaps there is a mindset or a pre-conceived idea that Strength and Conditioning for golf is limited to elite golfers and cannot be applied to recreational golfers. I trust that after reading this article, that mindset will change and we will see the recreational golfer embrace golf fitness.

It is interesting how prevalent injuries are in the recreational golfer, and oftentimes these recreational golfers have been to an injury specialist, whether it be a chiropractor, physiotherapist or fitness trainer, but have not seen their return to golf producing the fruit that they were hoping for. There are three main questions I would like to answer:

1. Why is there a high prevalence of injuries within recreational golf?
2. What are some of the challenges facing recreational golfers and golf improvement?
3. How can strength and conditioning for elite golf also be applied to recreational golf?

Why is there a high prevalence of injuries within recreational golf?

Recreational golfers play golf for fun, for enjoyment and in their discretionary time. They are not in the fortunate position where golf provides a stable income from which they can live. These recreational golfers are managers, accountants, IT specialists, doctors and teachers during office hours and aspiring professional golfers on the weekend. The majority of their time is spent in an office, behind a computer or standing for many hours a day, often extending to 50-60 hours a week. These golfers then bring their physical limitations to their golf swing on a Saturday morning club competition, and wonder why their golf is inconsistent.

The common physical limitations are all related to mobility issues. Flexibility or a lack of flexibility restricts the person's ability to move freely which creates unnecessary overloading of the body. These mobility issues not only create inconsistent golf mechanics, but dramatically increase the chance of injury too.

Back pain is the most prevalent golf-related injury in amateur golf with over 55% of amateur golfers experiencing back pain (www.mytpi.com), and we have seen that a lack of rotational mobility has a very strong influence on the health of the spine. Rotation in golf is sourced from the hips, more specifically internal (inward) and external (outward) rotation of the femur (upper thigh), as well as the thoracic spine (the area of the back between the neck and lower back).

If we assess the typical desk-bound corporate professional, we tend to find a very kyphotic (round backed, crouched) upper body. This posture greatly restricts the spine's ability to rotate, which then forces the golfer to sacrifice posture to "borrow" mobility at a cost of stability elsewhere in the body. Over 70% of amateur golfers lose their posture in the golf swing, and we can attribute this to poor rotation. Poor sitting habits create dysfunctional patterns within the pelvis, which then lends to an inability to achieve the athletic posture required to execute an efficient golf swing.



What are some of the challenges facing recreational golfers and their golf improvement?

The number one reason, according to an article written by the Economist in April 2015, why activity is on the decline within recreational golf is that the modern lifestyle is not conducive to playing a 4 hour round of golf. Time is a valuable commodity, and a round of golf takes anywhere from four to five and a half hours to complete. If you include travel- time to the golf course, warm up and a celebratory drink at the 19th hole with your playing partners, you are looking at a period in excess of 6 hours. Many corporate professionals, who work from dawn to dusk during the week, are becoming more reluctant to give up their precious weekends for an inconsistent, frustrating round of golf. They would much rather take up running or cycling as a form of exercise, as those activities do not take as long to complete.

Self-help information is another challenge that hinders recreational golfers. Gary Player, Tiger Woods and Rory McIlroy have changed the way recreational golfers see fitness and golf. These golfers, along with others have been at the forefront of changing the perception of what it means to be a golf athlete. The challenge with this new perception is that recreational golfers see the finished “product” on the covers of magazines, or on TV, but what they don’t see is the work that it took to get the golfer to where he/she is. Recreational golfers then assume the incorrect path towards “looking” like a golf athlete, without understanding the physical requirements needed to be a golf athlete. The information available in magazines and online is good information, **but the secret to success lies not in the information, but the application of the information.** Incorrect application of good information can lead to frustration, regression of golf performance, and in some cases, even injury.

How does Strength and Conditioning for golf apply to the recreational golfer?

The most important point to consider as a recreational golfer is that the load on the body throughout the golf swing does not change from an amateur level to a professional level. The rotational speeds of the hips, upper body, arms and golf club are comparable between amateur and professional golfers. Amateur golfers will make more golf swings in a round of golf due to a lower level of skill competency, which adds to the load on the body. Amateur golfers will also have inconsistent mechanics in the golf swing, which increases the chances of injury. Therefore, it is really important as a recreational golfer to ensure that you give yourself the best chance possible to play a good round of golf without hurting yourself. Here are some helpful hints.

- 1) **Train Specific:** general training achieves general results. If you want to play better golf, start directing your physical workouts towards the requirements needed for golf.
- 2) **Seek Professional assistance:** In order to get a tailored program to your specific needs as a golfer you need to consult with someone who has some kind of golf-related fitness certification.
- 3) **Stay away from quick fixes:** Quick fixes are like Band-Aids; they eventually lose their stickiness, and you will eventually run out of Band-Aids.
- 4) **Get Tested:** TPI have a slogan which they use to motivate their physical screening of golfers: if you aren’t testing, you’re guessing. Make sure that your fitness program is based on tests that can empirically show progression physically.
- 5) **Find a Good Golf Coach:** An improvement in your golf fitness will not automatically result in better golf. Your golf swing has been grooved around poor mechanics, and your body will revert back to the “old” golf swing if you do not groove better or more efficient movements. Professional golfers work with a golf coach all the time to ensure that their golf swing is functioning well with their body. A golf coach who understands the impact that the body has on the golf swing will help you to build a golf swing with your body, and work with your fitness trainer to ensure that you build a golf swing that is efficient, simple and most importantly, won’t lead to injury.

In summary then, we see that recreational golfers will indeed benefit from working with specialized golf fitness professionals to reduce injuries, create mechanical efficiency and improve their golf performance. This golf fitness expert is qualified not just to provide good information, but knows how and when to apply the information best.



Sever's Disease

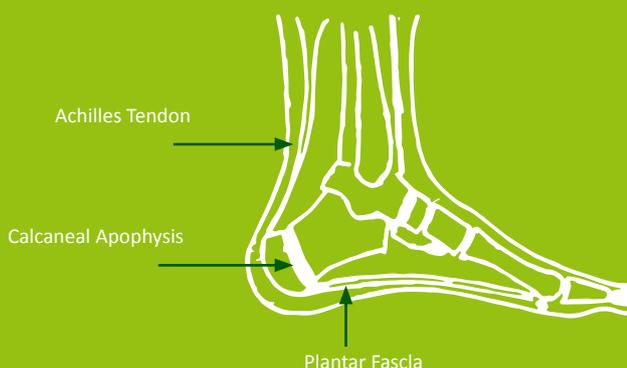
Text: Andrea Scriba, hpc

Adolescents are a very active population. With sport participation many young athletes acquire injuries. The foot and ankle are one of the most common areas injured in youngsters, accounting for up to 30% of sport-related visits to clinics. Heel pain is one of the most common complaints in this area.

The most common cause of heel pain in young athletes is calcaneal apophysitis or Sever's disease. Up to 16% of young athlete's seeking medical attention are diagnosed with Sever's disease. Other than causing discomfort and pain that could lead to cessation of sporting activities, Sever's disease has been shown to have a considerable impact on children's lives, affecting happiness, satisfaction and comfort.

Why does Sever's disease occur?

The calcaneus is the heel bone. An apophysis is a normal developmental outgrowth of a bone which arises from a growth centre, and fuses to the bone later in development. It serves as an insertion site for a tendon, which attaches muscle to bone. The apophysis is therefore vulnerable to injury because of the repetitive stress and pull of the tendon on it. In the ankle, the apophysis of the calcaneus is where the Achilles tendon attaches to. In Sever's disease the Achilles tendon attachment to this calcaneal apophysis is the site of this repetitive stress and pull. This can cause inflammation and resultant pain at that area, hence the name calcaneal apophysitis. Because adult's bones do not grow anymore and the apophysis has fused to the bone, Sever's disease does not occur in adults. Sever's disease is a growth-related overuse injury and not caused by a specific traumatic incident.



Who gets Sever's disease?

Sever's disease is seen mostly in children aged 10 to 15 who participate in running activities and sport. It is more common in boys than in girls. It is most often experienced at the start of a sport season, especially during a growth spurt.

Who gets Sever's?

- Mostly boys
- Ages 10-15
- Kids going through a growth spurt
- Kids participating in sport



Risk factors

Contributing factors to the development of Sever's disease have been investigated. No definite factors have been identified, but a few are thought to play a role. Such factors include participation in high-impact sporting activities such as jumping, improper footwear and running on a hard surface. Biomechanical and alignment abnormalities of the foot and ankle as well as being overweight may also predispose children to the development of Sever's disease.



Assessment

A diagnosis of Sever's disease is mostly made clinically by doing an interview and physical evaluation. Special investigations such as X-rays are most often not needed to make a diagnosis. Such investigation may be needed to rule out other causes for heel pain. A child with Sever's disease may complain of pain at the lower back part of the heel close to the attachment of the Achilles tendon. This pain may be on one or both feet and will increase with activity and decrease with rest. It does not cause pain at night or on awakening. Assessment and treatment by a medical professional is advisable for a child with heel pain. In that way, other conditions that could be causing the child's heel pain can be ruled out, contributing factors to the pain can be assessed and a treatment plan can be created specifically for a child. On examination, the attachment of the Achilles tendon on the heel may be tender and thickened. There may be ankle muscle weakness and the child may have tight calf muscles and decrease ankle joint movement.

Symptoms:

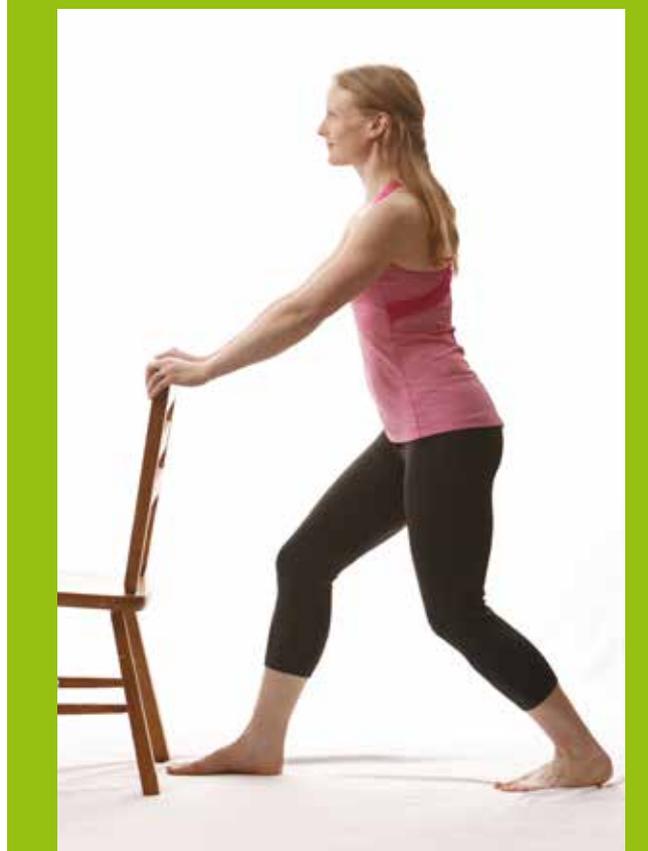
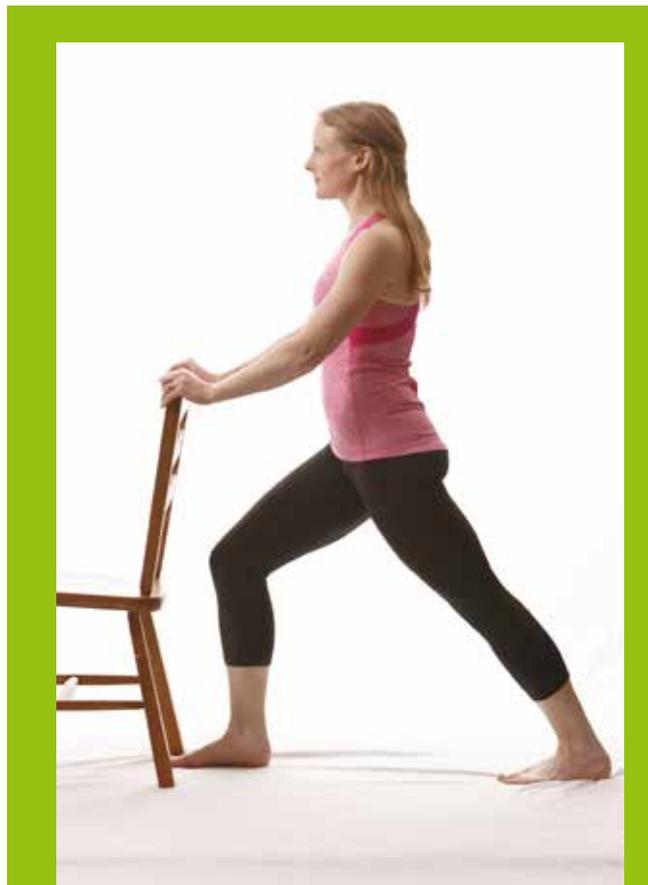
- Pain at the heel
- Gets worse with sport/activity
- Gets better with rest
- Heel likely tender to touch



Treatment

Sever's disease as well as all other apophysitis' are self-limiting conditions. These conditions and their symptoms will go away by themselves within a few weeks or months as the growth plates fuse in the youngster's late teens. Various treatment strategies have been shown to be effective in decreasing pain and improving participation and activity in Sever's sufferers. Stretching short calf muscles improves ankle movement and muscle length, decreasing abnormal pull on the apophysis and decreasing irritation of the insertion of the Achilles tendon on the heel.

Strengthening weak calf and ankle muscles improves calf and ankle muscle function and improves control of the ankle movement during walking, jumping and running tasks. Activity modification is recommended for pain-relief. It is recommended that the child rest from the specific provoking sport initially and then gradually builds up their participation. The athlete should return to sport when they're level of comfort during the task allows it. The child can however continue participating in activities that cause less load on the heel such as swimming or cycling. Custom orthotics such as heel lifts and inner soles have shown to be beneficial when used by patient with Sever's disease. Heel lifts decrease the tendon's strain and thereby the irritation on the calcaneus by decreasing the pull of the likely short calf muscles. Inner soles are beneficial if biomechanical changes are present and a contributing factor. Taping has also shown to bring relief from pain for Sever's patients.

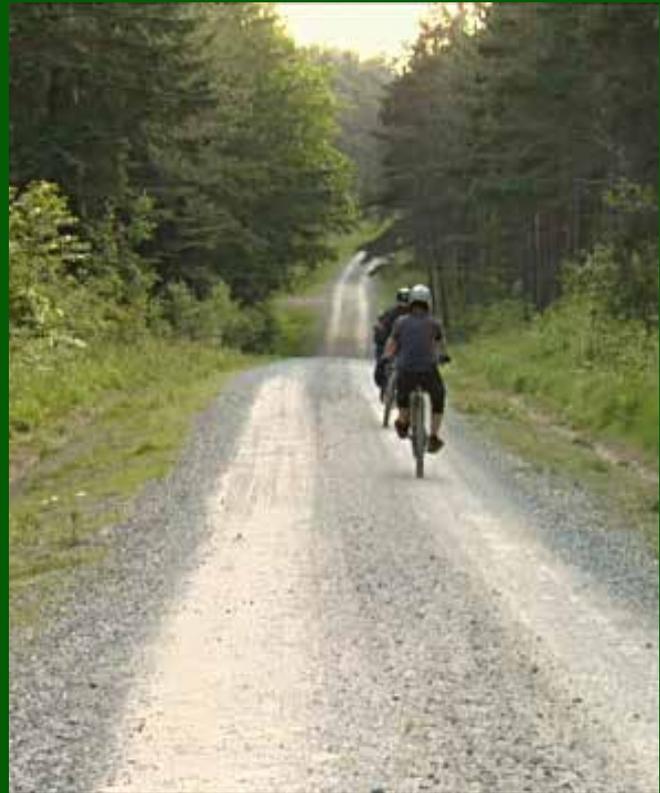


Treatment options:

- Physiotherapy
- Calf stretching
- Calf strengthening
- Activity modification
- Rest from aggravating sport
- Orthotics
- Taping

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General sports physiotherapy practice which also offer:

Biomechanical Analysis

- Functional movement analysis to identify :
muscle length- and strength imbalances
movement impairments
areas at risk for injury
- Correction of the above and injury prevention
- Stretching programmes
- Strengthening programmes
- Identification of incorrect muscle recruitment patterns with correction

Massage

Includes sports, pre-event, recovery & pregnancy
Massage therapist also available

Individual and group Pilates classes

Rehabilitation which improves:

- Posture
- Strengthens stabilisers
- Flexibility
- Circulation
- Skill-based conditioning

Spinal alignment, postural correction and Luno Method



Professional sport has grown into a global entity over the last two decades. It is possible to turn professional in most sporting codes and earn a reasonable living from it. These developments have highlighted the importance of good athlete management.

The role of the team doctor or sports physician has become very important. The sports physician needs to be a so called all rounder in the field of sports medicine and athlete management. He should have knowledge of sport conditioning, physiotherapy, biocinetics, nutrition, biomechanics and sport psychology.

The sport physician or team doctor must always be the case manager of the injured athlete. This entails consulting with the patient after injury and managing the multi professional team that helps the athlete with injury rehabilitation and high performance in general. The physician gets input from every role player and makes a final decision on return to play, training load and many other factors influencing the athletes training. He is also a very important communicator and link between all the different medical and high performance role players and the coach.

The coach is the main role player in planning the athlete's season and four years leading up to an event like the Olympic Games. Thorough planning is very important in ensuring that the athlete remains injury free and performs at the right time during this period which is usually at the event itself. What makes this planning tricky at times is the fact that the athlete first need to qualify for the Games and then also perform at the event which is a few months later. The general principle between all role players in planning should always primary be the well being and improving the performance of the athlete at all cost. The saying goes that all the "arrows" should be in the same direction.

The team doctor can help monitor training load in preventing overuse injuries. Give input on periodization of training programs to allow for proper pre season recovery and base training and also be an advisor in this regard to the coach to help the athlete reach peak performance at the right time in an Olympic year.

From a medical point of few monitoring during an Olympic year will include the doing of regular blood tests to monitor fatigue, overtraining and other common illnesses including deficiencies that can be detected in the blood.

The doctor also has an important role to play in making sure the athlete does not use any prohibited substances or banned drugs. If there is a medical reason for the use of these drugs he has to motivate it and get therapeutic use exemption for the athlete.

The sport physician also needs to advise athletes on the correct use of multivitamins, minerals and food supplementation in conjunction with the dietician.

In the build up to the Olympic games the physician has an important role to play in making sure the athlete stays healthy or when he gets sick, recover quickly.

In the weeks prior to the Olympics the team doctor should do his homework on the country the athletes will travel to. This will include finding out about climate, weather during the event, possible contagious diseases, available food and water, hotels, transport, medical facilities, medical aid, travel insurance etc. This will influence the content of his medical bag he takes to the event and help him plan accordingly.

When athletes travel over time zones the team physician will have an important role to play in helping them cope with jet lag and adapting to the time difference in the visited country. The team doctor will also advise them on methods to adapt to the change in climate and help them stay healthy the first few days there. Apart from all this his primary role will still be to diagnose and treat illness and injury in a way to minimize time to recovery.

From this it is clear that no team competing in a major sporting event can go without a team doctor.





The role
of the
**team
doctor**
in
professional
sport
and planning
before a
major event

Text: Dr Orgy Strauss



Health Tips for Rio 2016

Text: Dr Phato Cele Zondi

Role of sports doctor leading up to Rio 2016

- Tracking and monitoring athletes for risk of injuries and illness leading up to Rio
- Important to be able to flag at risk athletes and effectively manage them to prevent or limit time-loss injuries/illness. In an Olympic year, injuries that cause significant time loss can be damaging in terms of both physical and psychological preparation.
- Perform periodic health assessment
- Co-ordinate or oversee medical interventions ie physio, sports science, biokinetics, specialist referrals
- Advise on matters related to anti-doping where necessary
- Communication and trust between doctor, athlete and coach is vital.

Zika Virus

Zika virus disease (Zika) is a disease caused by Zika virus that is spread to people primarily through the bite of an infected *Aedes* species mosquito. The most common symptoms of Zika are fever, rash, joint pain, and conjunctivitis (red eyes). The illness is usually mild with symptoms lasting for several days to a week after being bitten by an infected mosquito. People usually don't get sick enough to go to the hospital, and they very rarely die of Zika. For this reason, many people might not realize they have been infected. Once a person has been infected, he or she is likely to be protected from future infections.

In May 2015, the Pan American Health Organization (PAHO) issued an alert regarding the first confirmed Zika virus infection in Brazil and on Feb 1, 2016, the World Health Organization (WHO) declared Zika virus a public health emergency of international concern (PHEIC).

Local transmission has been reported in many other countries and territories. Zika virus likely will continue to spread to new areas.



Symptoms

- About 1 in 5 people infected with Zika virus become ill (i.e., develop Zika).
- The most common symptoms of Zika are fever, rash, joint pain, or conjunctivitis (red eyes). Other common symptoms include muscle pain and headache. The incubation period (the time from exposure to symptoms) for Zika virus disease is not known, but is likely to be a few days to a week.
 - o See your healthcare provider if you are pregnant and develop a fever, rash, joint pain, or red eyes within 2 weeks after traveling to a place where Zika has been reported. Be sure to tell your health care provider where you traveled.
- The illness is usually mild with symptoms lasting for several days to a week after being bitten by an infected mosquito.
- Zika virus usually remains in the blood of an infected person for about a week but it can be found longer in some people.
- Once a person has been infected, he or she is likely to be protected from future infections.

Diagnosis

- See your healthcare provider if you develop the symptoms described above and have visited an area where Zika is found.
- If you have recently traveled, tell your healthcare provider when and where you traveled.
- Your healthcare provider may order specialized blood tests to look for Zika or other similar viruses like dengue or chikungunya.

Treatment

- There is no vaccine to prevent or specific medicine to treat Zika infections.
- Treat the symptoms:
 - o Get plenty of rest.
 - o Drink fluids to prevent dehydration.
 - o Take medicine such as acetaminophen (Tylenol®) to relieve fever and pain.
 - o Do not take aspirin and other non-steroidal anti-inflammatory drugs.
 - o If you are taking medicine for another medical condition, talk to your healthcare provider before taking additional medication.

If you have Zika, **prevent mosquito bites** for the first week of your illness.

- o During the first week of infection, Zika virus can be found in the blood and passed from an infected person to a mosquito through mosquito bites.
- o An infected mosquito can then spread the virus to other people.

What we know

- No vaccine exists to prevent Zika virus disease (Zika).
- Prevent Zika by avoiding mosquito bites (see below).
- Mosquitoes that spread Zika virus bite mostly during the daytime.
- Mosquitoes that spread Zika virus also spread dengue and chikungunya viruses.

Prevent sexual transmission of Zika by using condoms or not having sex



Steps to prevent mosquito bites

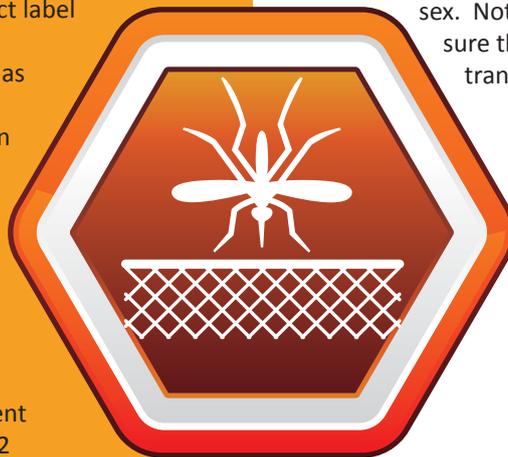
When **traveling** to countries where Zika virus or other viruses spread by mosquitoes are found, take the following steps:

- Wear long-sleeved shirts and long pants.
- Stay in places with air conditioning or that use window and door screens to keep mosquitoes outside.
- Sleep under a mosquito bed net if you are overseas or outside and are not able to protect yourself from mosquito bites.

Use **Environmental Protection Agency (EPA)-registered insect repellents.**

When used as directed, EPA-registered insect repellents are proven safe and effective, even for pregnant and breast-feeding women.

- o Always follow the product label instructions.
- o Reapply insect repellent as directed.
- o Do not spray repellent on the skin under clothing.
- o If you are also using sunscreen, apply sunscreen before applying insect repellent.
- If you have a baby or child:
 - o Do not use insect repellent on babies younger than 2 months of age.
 - o Dress your child in clothing that covers arms and legs, or
 - o Cover crib, stroller, and baby carrier with mosquito netting.
 - o Do not apply insect repellent onto a child's hands, eyes, mouth, and cut or irritated skin.
 - o Adults: Spray insect repellent onto your hands and then apply to a child's face.
- Treat clothing and gear with permethrin or purchase permethrin-treated items.
 - o Treated clothing remains protective after multiple washings. See product information to learn how long the protection will last.
 - o If treating items yourself, follow the product instructions carefully.
 - o Do NOT use permethrin products directly on skin. They are intended to treat clothing.



If you have Zika, protect others from getting sick

- During the first week of infection, Zika virus can be found in the blood and passed from an infected person to another mosquito through mosquito bites. An infected mosquito can then spread the virus to other people.
- To help prevent others from getting sick, avoid mosquito bites during the first week of illness.
- Zika virus can be spread by a man to his sex partners.
 - o We do not know how long the virus is present in the semen of men who have had Zika.
 - o We do know that the virus can be present in semen longer than in blood.
- To help prevent spreading Zika from sex, you can use condoms the right way every time you have sex. Not having sex is the best way to be sure that someone does not get sexually transmitted Zika virus.

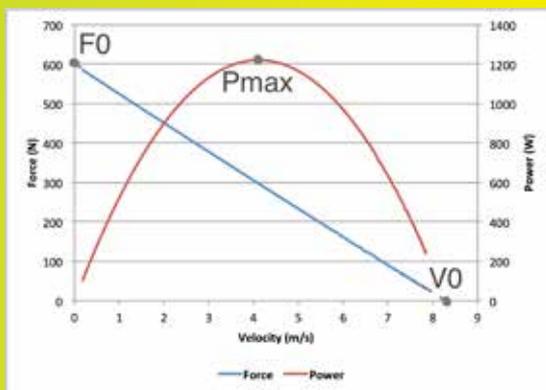


Power-Force-Velocity Profiling and Sprint Acceleration Performance

Text: Helen Bayne (née Crewe), PhD Head Biomechanist, hpc

The ability of an athlete to produce high mechanical power output in order to rapidly accelerate is a key performance factor in many sports, including individual sports such as athletics, and team sports such as football and rugby.

Mechanical **work** is done when a force acting on an object causes its displacement, and **power** is defined as “the rate of doing work”. The ability to produce large forces, apply these forces in the appropriate direction to cause the desired displacement, and to do so at a high velocity are therefore fundamental components of mechanical power. Indeed, power (P) can be represented mathematically as the product of force (F) and velocity (v): $P = F \times v$. The force-velocity-power profiling of an athlete can provide valuable insight into individual strengths, and may be used to prescribe individualised training programmes.



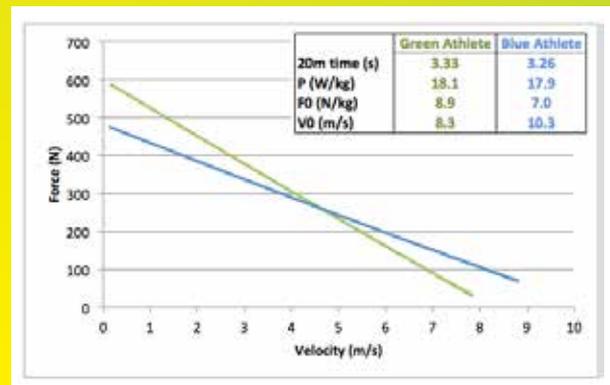
Until recently, the direct measurement of power output during sports movements has required expensive, sophisticated equipment that has largely been limited to sport science research laboratories. Power has therefore been assessed indirectly in the field, using tests such as jump height achieved in a maximal vertical jump, or time to complete a maximal sprint acceleration to 10 / 20 / 40m. These are useful tests to assess performance in movements that require good power production capabilities, and there are calculations available to compute the athlete’s power output during these tasks.

However, the performance outcome (jump height, sprint time) and the estimated power value do not provide any



insight into the underlying determinants of power output. Fortunately, field-based methods are now available to compute force, velocity and power from speed-time data acquired through radar devices.

Using the speed-time data and the athlete’s mass and height, horizontal acceleration and force can be calculated. The below figure displays the profiles of two athletes with similar speed testing performance and maximum power results, but very different force-velocity profiles.



For 100m sprinters, the ability to generate force at a high velocity is an essential factor for top performance because it enables athletes to continue accelerating for longer and therefore reach a higher top speed. The blue athlete in this example has an advantage in this regard (higher V0) and the green athlete would benefit from improving this aspect of their force-velocity profile.

In team sports (such as rugby), where sprints are shorter and initial acceleration may be more beneficial for gaining an advantage over the opponent than achieving a high maximum velocity, the other end of the force-velocity profile (F0) has been shown to be more important. To improve his F0 capabilities, the blue athlete could spend more time on strength work and less on maximal velocity work.

This simple method of force-velocity-power profiling is an example of how sport science research has been translated into field based methods that can provide coaches and trainers with useful information to guide their programmes. Knowledge of each athlete’s profile allows individualisation of training, progress monitoring, and can also be used to inform injury prevention and rehabilitation decisions.

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How important are socio-ecological factors in talent development?

Text: Mary Ann Dove, founder Positive Sport Parent and Positive Sport Coach

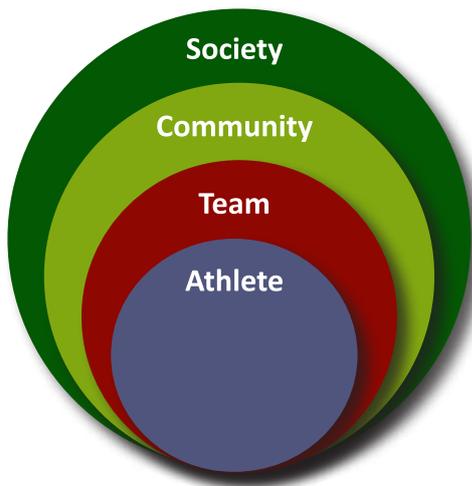
Four years have passed since the London 2012 Olympic Games and once again we will witness an extra-ordinary display of talent at the 2016 Games in Rio in August. This talent will come from individuals and teams from over 200 nations around the world – diverse in background, ethnicity, gender, religion, socio-economic status, education, family and community dynamics, life-skills and talent development environments.

It is now well recognised that the development of sporting talent is dependent upon the influence of both genetics and training on individual characteristics, as well as interaction with the micro and macro environments. Over the years various models have been formulated in an attempt to determine the most effective talent development process. This is an ongoing project as more research is conducted and we begin to better understand the complexity and multi-factorial nature of the subject.

These models have in the main focussed on understanding how best to develop the physical, technical, tactical and mental skills of individuals and teams in an attempt to gain that small advantage that separates the elite from the sub-elite, the medallists from the finalists. The role that the micro and macro environments in which sportsmen and women train and compete has been less well researched and understood. Athletes do not participate in a vacuum but form part of a team, community and wider society, all of which may influence their opportunities and capability to perform. For example, the influence of education on sporting performance may be affected by how education is perceived at different levels in society.



Figure 1: Sociological model that may impact on sporting performance



Much of the research done on the role of the environment has been done in Scandinavian countries where they examined the athletic talent development environments (ATDEs) in track and field, kayaking, sailing (49er class), golf and soccer. ⁽¹⁾ Features of these environments included:

- Training groups with supportive relationships
- Proximal role models
- Support of sporting goals by the wider environment
- Support for the development of psychosocial skills
- Training that allows for diversification
- Focus on long-term development
- Strong and coherent organizational culture
- Integration of efforts

An example of such an environment is displayed in figure 2 below



Figure 2: The ATDE empirical model of the AGF soccer club ⁽²⁾

Ongoing research at the University of Cape Town (UCT) ⁽³⁾ has identified the role that a number of socio-ecological factors may play in the progression of cricketers through the talent pipeline. The most significant of these were:

- Good educational opportunities were perceived by research participants to contribute significantly to their success as a cricketer
- Support networks, particularly parents have previously been recognised as contributing to the development of elite athletes. This research supported this finding.
- The lack of a supportive team environment may contribute to inconsistent individual performances and therefore make selection for higher teams more difficult. This is particularly relevant in multi-ethnic environments such as South Africa. Team cohesion is considered an important factor in the success of high level sporting teams.
- The lack of quality of opportunities afforded to some players to compete resulted in many cricketers giving up playing the game
- Socio-economic factors were perceived by all participants to be a major contributing factor in the ability of players to achieve success at the highest level

So what are the implications of the findings of the Scandinavian and UCT research for talent development practitioners, coaches and sports administrators? And are they paying enough attention to these environmental contexts when designing and implementing strategies to develop and support athletes to achieve their potential on the world stage? The large socio-economic diversity prevalent in South African society results in a number of these contextual factors impacting differently on different players. This suggests that generic programmes of talent development may not be appropriate in the South African context.

Perhaps as we watch the Rio Olympic Games we will do so through a modified paradigm as we consider the wide variety of societal challenges that many of the participants have had to navigate to achieve at these levels.

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hpc Soccer Academy: where young players learn to fulfill their true potential!

Text: Wilhelm de Swardt | Image: Reg Caldecott

It can truthfully be said that the High Performance Women's Soccer Academy is successful in its mission to develop talented female football players into national and international stars.

Since the Academy has been founded 11 years ago more than 100 players went on to play for Banyana Banyana and quite a few of them are plying their trade in Europe. Roughly estimated this means that the Academy turns out the exceptional number of 10 national players every year.

An interesting statistic is that of the 29 players in the national squad who are currently preparing for the Olympic Games in Rio, 12 are former hpc Academy players. Banyana Banyana's captain, Janine van Wyk, is one of them.

The 11 other former Academy players in the Olympic training squad are: Vivian Vilikazi, Mamelo Makhabane, Chantell Esau, Jabulile Mazibuko, Linda Mohlalo, Mapaseka Mpuru, Nomatamba Ntsibande, Lerato Kgasago, Busisiwe Ndimeni, Nompumelelo Nyandeni and Tembi Kgatlane.

Josina Tellie, the Manager of the Academy, needs only one word to summarize the reason for the Academy's success. The word is 'discipline', but judged by the way she said it, it is undoubtedly written in capital letters and followed by a couple of exclamation marks as well.

"There is a very good reason why the 12 Academy players are in the Olympic training squad. They know what it takes to be truly disciplined and it is paying dividends.

Tellie used the word discipline quite a few times more during our conversation.

Fran Hilton-Smith, who founded the Academy, made it clear right from the beginning that the focus at the hpc would be 50-50 - football and education.

"I realised that not many of the girls would be able to make a career out of football, but with a good education they can go far. The hpc academy has been a lifeline for women's football. We now have a number of graduates from hpc who have proceeded to obtain University degrees. Simphiwe Dlodlu, Keneilwe Mathibela, Nomatamba Ntsibande and recently Gloria Thato are just a few of the players who made the most of the opportunities offered to

them by the hpc."

Some of the former hpc players have also gone on into football coaching ie Simphiwe Dlodlu coaches TUKS Ladies and is also the acting assistant coach of the u17 Women's National team. Keneilwe Mathibela is also a SAFA coaching instructor.

According to Tellie, who is known among the young players as "Granny", when the girls first arrive at the Academy most of them are not too keen on their studies.

"All they want to do is play football. It is all that matters to them, but because of the Academy's holistic approach they eventually realize the importance of a good education.

"I ascribe it to the fact that the girls stay together at the Academy and they do everything together. It seems to become contagious to train and study together. The Academy is a one-stop shop aimed at helping girls in all aspects of life."

It has become the norm for most of the players to go to university after they matriculated to further their qualifications as well as their football careers. The Academy is in regular contact with most of the universities to help facilitate the process.

When Sheryl Botes (coach) explains her coaching philosophy it becomes clear why the Academy players become such successful football players.

"Because it is not fruitful to play against girls, we play only against boys. Most girls play the game technically correct but they are not as quick and strong as the boys. It serves no purpose to play against other woman's teams when you win 5-0 all the time. It only creates a false sense of security among our players.

"Our aim at the Academy is not only to win. It is also about making the players tougher and physically stronger and faster. It is necessary that we do this because the girls who play for teams such as Nigeria and Ghana are really big and we don't want our players to be intimidated when they play against them.

"So our under-15 girls will play against under-13 boys; the



under-17 girls against under-15 boys.”

“The advantage of playing against the boys is that our players are constantly under pressure. The boys are always quick on the ball, which forces our players to also become quicker. It also helps them to make decisions in an instant. In a game against the boys it becomes clear which players are able to handle pressure.

“Even during our training sessions the players are not allowed to cut any slack. Our coaches try to keep it real, as it would be during a game. My philosophy is ‘the way you train is the way you will play’. That is why we train at a high intensity all the time.

“We also realize that football has become more scientific all over the world. Being part of the hpc, our players have the advantage of access to the best scientific support that is available. Apart from the dieticians, sports psychologists and biokineticists we have at our disposal, we can also do video analyses of our games. This enables us to pinpoint mistakes as well as perfect playing tactics.”

According to Botes one of the most important reasons why the Academy is so successful is the fact that it is a long-term project.

“We work with most of the girls for a period of three to five years while they are at the TuksSport High School. This means that players are kept in the same organized structure. It takes about five years to develop a national player. Ronaldo did not become an international soccer star overnight. His rise to success was a process that stretched over quite a few years.

“When our players leave the Academy they have been conditioned over a long period to understand the methodology, theory and tactical aspects of football.”

Tellie adds that, because they realize that not every player has what it takes to make a career of playing professional football, the Academy also offers the girls the opportunity to qualify themselves as football referees, coaches or even managers.

“There is certainly more than one way for girls to live out their passion for football.”

It is safe to say that South African women’s football would not have been at the level it is without the impact of the hpc.

Bring back Physical education?

Text: Wilhelm de Swardt

South Africa has the highest rate of overweight and obesity in Sub-Saharan Africa. Up to 70% of women and one-third of men are classified as either overweight or obese.

A staggering 40% of women in our country are obese, which means they have a body mass index greater than 30 kg/m². However, this is no longer only an adult problem. 1 in 4 girls and 1 in 5 boys between the ages of 2 – 14 years are overweight or obese.

Obesity is associated with a number of diseases, such as type two diabetes, heart diseases, strokes, hypertension (high blood pressure), painful joints, as well as certain cancers.

These frightening statistics can be found on the Heart Foundation's website. Reading this one cannot help but to think about the ongoing debate about whether Physical Education should be brought back into the school curriculum.

Would doing so help to reduce the obesity statistics?

According to Shona Hendricks, head of sports science at the hpc, there are two ways to look at it.

"It can be reasoned that physical education in schools is important from a high performance perspective, in other words it can help to develop good athletes. But it can also be reasoned that having physical education at school will be good from a health perspective.

“The fact that children are often not exposed to physical education or proper movement at a young age can have an impact on both these ways of thinking. Through our work we have found that, nowadays, kids actually don’t know how to do the basic body movements correctly, which is a major concern. One of the reasons for this is that many of them are not really interested in being physically active. They are more interested in computer games and their mobile phones.

“The reality is that everything in our modern lifestyle has become fast and instantaneous. Children are often not eating healthy foods mainly because both their parents put in long hours at work. The easy option for parents is therefore to quickly buy fast food meals in the evenings. Unfortunately the kids suffer because of it.”

What should physical education at school entail?

Hendricks says the focus should not only be on trying to expose children to as many different sports as possible.

Physical education should be a guideline for youngsters of how they should ideally live their lives. The more they are exposed to physical activities the better the chance that it will become a way of life for them.

“Through exposure to different sports children can learn to understand the fundamental movements and at the same time they will learn how their bodies work.”

Kirsty Elliott, sports scientist, is of the opinion that physical education should not be sport specific.

“It should be about providing children with fundamental skills and movement abilities, as well as allowing them to explore what the different sports are about.

“Physical education should hold a place in a school’s academic curriculum, studies have shown positive correlations between physical activity and academic performance, long term health and wellness and well as sociological benefits Making it part of a daily timetable and not and optional after school extra is vital in developing our youth.”

Elliott said that she has found through her work that kids who start to specialise too early in a specific sport, tend to reach performance plateaus, limited by their movement capabilities. The only solution then is to get them to go

back to basic movement and strengthening exercises. The better way forward will be to develop those first in a physical education program. Once a child has mastered those capabilities he can begin to sample the different sports.

“Unfortunately, because of the trend towards professionalism in sport, kids are driven to commit to a specific sport before they turn twelve. Ideally, this process should only occur between the ages of 13-14.

“My advice to parents is to encourage involvement in movement centred sports from a young age rather than sports that require specific motor skills. These include sports like gymnastics where movement and manipulation of your body in space is the core skill. The same goes for swimming and athletics. Sports that require more refined motor skills impact negatively on basic movement development.

According to Elliott a physical education expert Gordon Pattison from New Zealand summarized the concept of what physical education should be about as follows:

“Physical education is not only about the physical aspects of sport. It is about the need for health, psychological wellbeing and sociological values that are learnt through physical activity such as leadership, team work, facing adversity and coping under pressure. “Implementing physical education in schools could impact on the sociology of a community because the children will be learning life skills through sport which they can use in different facets throughout their lives.

“In conversations with many Olympic athletes it became clear that they had certain sociological skills that helped them to succeed and set them apart from people with similar physical strengths.”

Elliott also referred to a study done by Cathi Draper in the South African youth population; which found that motor skills of children younger than five in privileged and underprivileged communities were very similar. However, the difference become apparent once they are exposed to different experiences in primary school. Motor development in poorer community had declined by the end of this primary school phase. A physical education programme could provide a tool within a schooling environment to ensure that we develop a healthier, more productive population for the future.



StripeUP 2016

The second annual StripeUP event took place on Thursday the 4th of February 2016.

StripeUP is an event where all the current athletes as well as the first years get together to celebrate the successes of the previous year, welcome each other home to TuksSport and look forward to the new year and all it has to hold.

First year student-athletes are given a taste as to what it means, and what it feels like, to be a part of the TuksSport family. Loads of selfies were taken in the photo booth and a full colour stripe was built out of quotes and goals that the athletes wrote down just before they entered the Rembrandt Hall.

Entertainment in the form of motivational TuksSport videos, music, engaging MC's, dancers and cheerleaders created an exciting vibe for the evening. The TuksSport family also known as the Stripe Generation were taught the SG Shakedown – a signature dance move that will be used at all TuksSport future home matches.

Prof Cheryl de la Rey and Mr van der Walt addressed the students and highlighted the special environment at TuksSport, the values and importance of ensuring a holistic education at UP. Mr van der Walt emphasised that being part of TuksSport and wearing the stripe is a very unique and special privilege. Prof de la Rey reminded athletes that they should always wear the stripe with the utmost respect, dignity and pride.

Murray Coatzee, David Mogotlane (TuksCricket) and Jacinta Jubb (TuksHockey) all senior student-athletes conveyed to the students that by being a part of TuksSport and the University of Pretoria they will be exposed to the best opportunities and the most conducive environment for success in both their sport and their studies. They emphasised the importance of ensuring a balance between academics and sport and encouraged all students to take part wholeheartedly.

Prof de la Rey and Mr van der Walt performed a symbolic hand over of the stripe was handed to the new AmaTuks Head Coach, Shaun Bartlett, the new Assupol TuksCricket Head Coach, Kruger van Wyk and two new first year bursary student-athlete; Jonathan Wing(TuksCanoe) and Shongile Hlungwana (TuksNetball)

First year athletes were then presented with a symbolic Tuks bandana, and encouraged to join the stripe generation and earn their stripe in all areas of sport and academic life at the University of Pretoria.

Once the formalities were over the athletes, coaches and support staff enjoyed socialising and getting to know each other as well as sharing their dreams, goals and aspirations for 2016.



TuksJudo: National Judo Trials

The National Judo Trials took place in Durban from the 6-7 February 2016. TuksJudo was very well represented at the event bringing home a 18 gold, 7 silver and 3 bronze medals. 21 Tuks Judokas received their National Colours and 25 Judokas qualified for the Commonwealth Judo Championships that is set to take place in Port Elizabeth in April 2016.



TuksHockey: National Selections

The South African u/21 men's and women's hockey teams have been selected for the Junior World Cup Africa Qualifier Tournament in Windhoek, Namibia from March 18 - 28 2016. The following players have been selected from TuksHockey:

- Men - Khumo Mokale, Tevin Kok and Peabo Lembethe
- Women - Amy Etherington, Marlise van Tonder, Natalie Esteves, Sulize de Klerk, Marguerite van Wyk.

Our TuksHockey Women's Head Coach, Inky Zondi, will be the Assistant Coach to the SA u/21 women during their Qualifier Tournament.

The Following players have been selected for the **Senior National** teams that will compete in a series in February 2016:

- Women: Nicolene Terblanche (Captain), Celia Evans, Marlise van Tonder (First call up)
- 4 Nations in Cape Town: South Africa, India, Germany and Scotland

- Men: Tevin Kok and Stephen Cant (First call up)
- Men's Series in Cape Town vs Germany

TuksVolleyball: National Flying Fish Beach Volleyball Series

Some of our TuksVolleyball players participated in the National Flying Fish Beach Volleyball Series in Cape Town over two weekends.

Jaime-Lee Wentzel/Vanessa Sardinha da Silva and Margrit Springer/Nicky Wenhold played in the 4th tournament of the series held at UWC from 29-31 January. Springer/Wenhold made it to the quarter finals.

On 5-6 February the 5th tournament of the series continued in conjunction with the Cape Town 10s event. This time Margrit Springer/Nicky Wenhold won all their pool games, as well as the quarter finals. Being knocked out in the semi-finals against the current number 1 team in the country (Hessels/Vink), Springer/Wenhold finished in 4th place.



TuksNetball: Netball WUNC Miami, July 2016

The following players from TuksNetball have been selected to represent South Africa and Namibia at the Netball WUNC in Miami in July 2016: Melissa Kotze, Lindi Lombard, Lenize Potgieter, Izette Lubbe, Shadine van der Merwe, Juzelri Garbers (Namibia) TuksNetball's Head Coach and Technical Director, Jenny van Dyk, has also been selected to travel with the team as Technical Advisor.



TuksCycling: World University Cycling Championships

TuksCycling's Elmarie de Wet and Andrea de Boer have been selected to represent University Sport South Africa (USSA) at the World Championships in March in Addis Ababa, Ethiopia.



Assupol TuksCricket two-time Varsity Cricket champions

Tears of joy, tears of sorrow, expectations met and expectations missed. The 2016 Varsity Cricket tournament is now over and history will record the name of Tuks as two-time champions.

Tuks defeated the University of the Western Cape (UWC) by 21 runs in the final of the 2016 Varsity Cricket tournament on Saturday night at Senwes Park. Tuks ended on 174/5 and UWC were restricted to 153/6.

By retaining their Varsity Cricket crown, Tuks fortified their reputation as a team who is prepared when big

opportunities come knocking, having also won the prestigious Red Bull Campus Cricket tournament in India last year.

UWC were the archetypal underdogs going into the final and deserve praise for their outstanding performance, but in the end they were no match for their opponents. Tuks needed to put in a team effort and they did just that. Evan Jones (56 from 35), Gerry Pike (45 from 48), and Blake Schraader (40 from 24) formed the fulcrum around which the Tuks innings revolved.

UWC was unnecessarily reserved. They lacked the urgency and big-match temperament of their opponents. Maybe the occasion was too big, maybe Tuks were too good, maybe it just wasn't UWC's time. A telling statistic can be found in the fact that Tuks delivered 20 dot balls within the first six overs. If UWC went for it and lost wickets, that would have been one thing, but they erred on the side of caution. It was a fatal decision. Wickets fell but the required runs were not attained. Dean Mazhawidza managed to strike 53 off 50, but it was as futile as it was valiant.

'I wanted to contribute in the final on the big stage,' said Man of the Match, Evan Jones, after the match. 'Its all for the boys.'

His captain, Murray Coetzee, promised that there is still room in Tuks' trophy cabinet. 'I'm absolutely ecstatic about the win,' he said. 'We know how to play well in the big games. We showed that in India last year and this was, once again, unbelievable. We are going to Sri Lanka for the 2016 Red Bull Campus Cricket championships and we hope to bring back the trophy again.'

FNB Best Bowler: Zain Webster (UWC). Edgars Active Best Batsman: Evans Jones (Tuks). Steers Best Catch: Shaun Phillips (Tuks). Samsung Man of the Match: Evan Jones (Tuks)

- Author Bertie Jacobs

www.up.ac.za/tuksport

TuksSport

INSIDE NEWS

ATHLETICS

2 OCEANS

Caroline Wöstmann won the Old Mutual Two Oceans women's ultra-race for a second successive year in a time of 03:44:44s while Charné Bosman finished fourth in 3:48:40.



Irvette van Zyl won the 21 km Two Oceans race in Cape Town for the first time in 1:13:14s



Caroline Wöstmann won 3rd ultra-marathon title when she won the Old Mutual 50km 'Om die Dam' in 3:38:38 on Saturday 12 March.



Irvette van Zyl won the 3000m at the ASA Nite Series in PB time of 9:11.51 and continued her great form when she also won the 5 000m in 16:17.69 at AGN Champs.



Akani Simbine broke new SA 100m Record in 9.96s at ASA Nite Series #1 Meet on 8 March.



Luvo Manyonga, twice jumped Olympic Qualifying distances within a 7 day period by doing 8.20 at the AGN League 7 meet and 8.30 at the AGN Champs on 11 March



Lebo Shange finished 2nd in Australian 20km Race Walking Champs in Adelaide on 21 February when he sets a new SA record in a time of 1:20:06s, shattering his previous record by 1 minute and 37 seconds.



Carina Horn unofficially Qualified for the Olympics when she finished 1st in women's 100m in 11.23s.

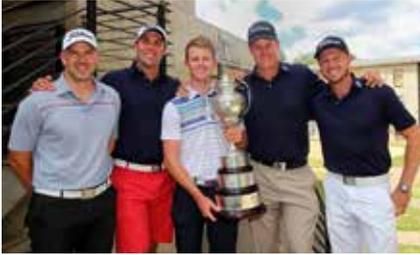


Gézelle Magerman, the Youth Olympic champion, claimed the women's under-20 400 hurdles race in 59.09s and the 400m in 54.37s at the AGN Champs



GOLF

Brandon Stone won the SA Open at Glendower Golf Club



Zander Lombard finished second at the Joburg Open played at the Royal Johannesburg and Kensington Club.



Anthony Wall, Haydn Porteous and Zander Lombard (Getty Images)

Marco Steyn: First high school learner to become number one amateur golfer in South Africa



Dylan Mostert, Marco Steyn, Dylan Naidoo, Herman Loubser celebrated an 18th consecutive victory for South Africa in the 2016 All-Africa Junior Golf Challenge in Sousse, Tunisia (Picture courtesy of SAGA).



JUDO

Zack Piontek secures Bronze in Pan American Open Judo Tournament in Lima, Peru



TRIATHLON

Basson 3rd in ATU Cup Troutbeck, Zim in 02:02:35



ATU AFRICAN CHAMPS, BUFFALO CITY

Wian Sullwald finished second overall in 2:04:05 and won the African U23 title for a third time. His teammate, Basson Engelbrecht was third overall in 2:05:27 and second in U23 event.



SWIMMING

Schoenmaker swims unofficial Olympic Qualifying Time at SA GRAND PRIX PE



2015 AGN Awards:

The TuksSport High School Athletics Programme Awards.

Thobile Amon

Award: Cross Country Female Athlete of the Year and also nominee for the overall Female Athlete of the Year

Dimakatso Msheba, Palesa Msheba & Vincent Nhlapho -

Nominees, Young Race Walkers of the Year.

Gift Leotlela

Award: Track & Field National Colours for 2015 and Award for the Track & Field Most Promising Young Athlete

Chris Britz

Nominee Coach of the Year

Hennie Kriel

Award : Coach of the Year

TuksSport High School

Award: Cross Country League Winners



TENNIS

39th African Junior Championships 14 and 16 & under

The hpc and Tuks tennis in collaboration with Tennis South Africa played host to the 39th African Junior Tennis Tournament from 8-18 March 2016. This prestigious International Tennis Federation (CAT) event saw the top junior tennis players from 29 countries compete against each other on behalf of their nation.

The tournament displayed an overall high standard and reinforces the pool of talent available to work with and develop on the continent. This event also gave the hpc a wonderful stage to showcase both our Tennis programme and the wonderful facilities TuksSport has to offer. One of the TuksSport High School athletes Tsegofatso Tsiag represented Botswana as well as hpc in a commendable manner and managed to finish within the top 16 players in her age group.

The opportunity to host this event has brought about renewed working relationships with Tennis South Africa and the International Tennis Federation with the hpc. The vision for tennis at this establishment is to collaborate with stakeholders to produce African players that can compete on a world stage as well as represent themselves, their families and countries as first class citizens to society. The secrets of success in performance tennis are complex, but a professional approach is crucial. This opportunity is another step closer to achieving our vision. Visiting players had the opportunity to utilize the Sport Science and medical unit expertise first hand which added extra professionalism to the tournament.

From a Tennis South Africa perspective this is the best possible exposure and opportunity they can provide to the home grown talent. To be able to gain high level experience in a relatively familiar environment gives our athletes the best chance to succeed. The financial investment to give our players this level of exposure through travel to other parts of the world is substantial, so the benefit from

this experience for considerably less financial investment by the individuals is valuable.

We hope to build on these relationships and opportunities in the future by hosting this event once again in 2017, as well as other tournaments on the ITF junior and senior calendars.



Team South Africa U16 and U14 Boys and girls - overall winners.



Top three countries of the AJC event. 1 South Africa, 2 Egypt 3 Morocco

FOREIGN VISITORS

Belarus / Kazakhstan Swimming team



UK Chesterfield Swimming Team



Spanish Swimming team



French Rowers



American University of Beirut Rugby League



Cyprus Silver Medallist (high jump) Kyriakos Ioannou



Swiss Swimming team



British Swimming Team



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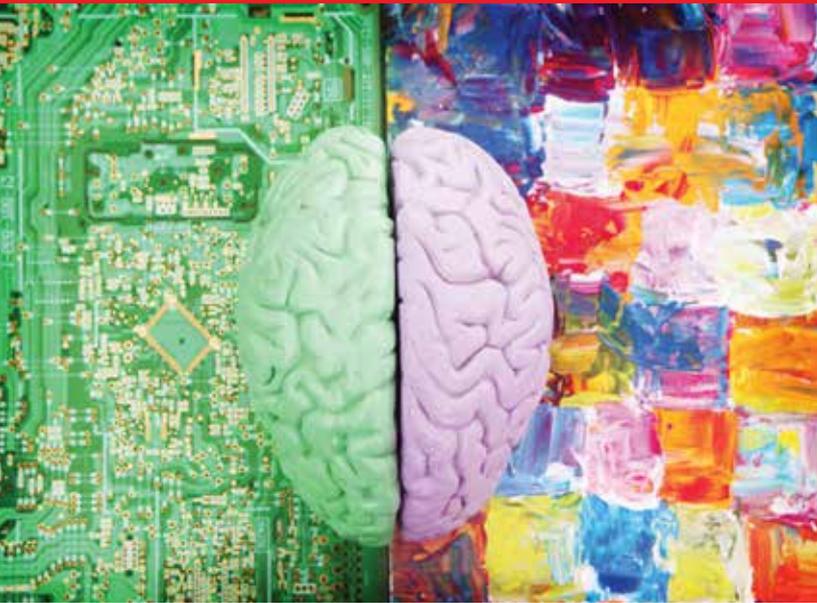
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