

**International Science**

**And Football Association**



**Newsletter Magazine**

**AGILITY IN SOCCER**

**ISAF COULD HELP!**

**YOUTH INTEGRATED  
TRAINING**

**ISAF IN QATAR 2016:  
REPORT**

**MODERN FOOTBALL  
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**REALITY OF FOOTBALL IN  
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**TRAINING IN HOT  
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**DIET SUPPLEMENT IN  
FOOTBALL**

**5-A SIDE FOOTBALL WORLD CUP  
FOR THE OVER 50 YEARS' OLD**

**AFRICAN FOOTBALLERS'  
MOBILITY**

**Edition 1 - 2017**

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# Preface

BY: JULIEN BAKER & MONEM JEMNI

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The International Science and Football Association (ISAFa) is at the cutting edge of soccer development globally, with events and enterprise taking part in different countries and nations of the world.

2017 will see the ISAFa integrating the 1.7 billion people's market in China, by organising its first event in Ningbo City. This will be followed by other similar initiatives in the near future, and also in the long term development of soccer in Asia.

Interestingly, the ISAFa will be in Russia during the FIFA World Cup 2018 with another outstanding event to be organised at a later date. All our events are well publicised and covered by different local and international media.

Our Social network reaches 25 countries so far, and is developing rapidly since the introduction of our global reach strategies, cumulating in our increased impact and our establishment

worldwide. We are expecting a significant increase in reaching out to more individuals, more often via greater opportunities with further promotion of our events.

This Newsletter Magazine outlines the development of the organisation, and includes opinion articles and methodologies that will enhance the performance of football to the highest levels.

The articles are written by professionals in the field, and provide the reader with up to date knowledge and training protocols from across the globe. The ISAFa is committed and dedicated to further enhancing skill acquisition and sharing information in relation to science and football knowledge, practices and development globally.

We wish the readers success in future developments and the application of science to football in their training regimes. We hope you will join us in China this year for an outstanding event and conference.

# Report

“By: Atharva Tere

Brunel University, UK”

## ISAFa in Qatar 2016



The International Science and Football Association's Workshop and Conference 2016 (ISAFa in Qatar 2016) was hosted at Qatar University in collaboration with major partners from sport, research and education sectors in Qatar and beyond including: Anti Doping Lab Qatar (ADLQ), ASPETAR, ASPIRE, SESRI, Qatar Olympic Academy, ISMAI Portugal, several football clubs from Qatar and/or from abroad (Al-Jaish FC, Al-Saylia FC, Al Wakrah FC, Benfica Lisboa Portugal and Corinthians Brazil). ADLQ, AD-Instruments, Human Kinetics and Al Rayyan Water have sponsored the event.

The event was split into 5-days workshop by some of the leading coaches from Qatar, South America and Europe and followed by 2-days conference wherein various sports science dignitaries from around the world talked about their ongoing and cutting edge research. This setup ensured that the attendees got a great perspective of the coaching as well as the scientific aspects of football. The conference gave a chance for young and budding researchers to showcase their work in front of experienced sports scientists through the Young Researchers' Awards. The logistics of the event was handled wonderfully well by the students as well as the staff of the local sports science department.



All the practical sessions took place in the morning and were followed by their theoretical lectures in the afternoon. The outdoor sessions were conducted at the football stadium on campus itself. The pitch and facility standards were top class which shouldn't be surprising as El Jaish (a professional Qatari football team) uses it

for training purposes. A special credit must be given to all the volunteers who braved the heat to partake in the football clinical sessions.

The 4-days workshop kicked off with a football drill from Sabri Lamouchi who is the manager El Jaish but is famously known as being the head coach of Ivory Coast national team which qualified for the World Cup in 2014. The session revolved around integrated fitness training using various small sided games (SSGs). This topic was particularly salient to modern day football as coaches want to integrate fitness drills with technical elements. The assistant coach, Jean Mark Kuntz broke down the session into finer details during the theoretical session. The coaching staff was also kind enough to let us witness their team's training. This gave us a first-hand experience of how and what professional players per-



formed a day before a game.

Another of Qatar's Premiership teams, Al Saliya FC was on show on the second day. Amine Frikha and Wassim Moalla, the team's assistant coach and sports scientist respectively led the session. It was related to micro cycle specific training and periodization. This was a particularly important topic in my opinion having worked at a couple of football clubs in my short career as a sports scientist. Periodization of the the training plan ensures players' recovery between games and prevents injuries and overtraining. Dr Ali Al Bakri top-up the day with an important talk about psychological aspects linked to team building, cohesion,... as well as the need to adopt a holistic approach to fitness training. The afternoon session consisted of a visit to Qatar University's very unique virtual reality

laboratory. Use of such devices could help coaches explain the tactical nuances to the players off the field without taxing them physically. This technology could also assist players honing their individual skills like defending or attacking corners, penalty taking, etc.



Day 3 and 4 mainly comprised of pre-season fitness and conditioning as well as tactical drills. Conditioning is an important part of pre-season and could be critical to achieving the outcomes of the whole season. The take home message from this session is to always ensure that the players are working the right type of energy system during the appropriate times of the pre-season. Fitness coach, Wojciech Ignatiuk was on hand to explain the intricacies behind the organization and implementation of a solid pre-season. Prof. Antonio Gomes who trained the likes of Luis Ronaldo and a plethora of world class Brazilian players, talked about the importance of speed training in football. Paulo Mourao who is the sports scientist at SL Benfica, conducted a session specific to proprioceptive training. Using nothing more than footballs and cones, he was able to demonstrate how injury prevention and rehabilitation can be cheap and easy to conduct. He also emphasized the importance of body weight exercises in preventing hamstring injuries which is the most common injury in world football.

# Continued..

## ISAFA in Qatar 2016



We visited the exceptional Aspire Academy on the final day of the workshop. The facility has been built as a part of Qatar's vision for the 2022 world cup. We were given introductory lectures first before being shown around. The welcoming staff consisted of Valter Di Salvo, Matthew Varley, Daniele Bonnano and Warren Gregson. The academy holds a lot of promise for young footballers with such reputable personnel and top class facilities at their disposal.

The distinctive conference brought together experts and world leaders in football and science from both academic and coaching practitioners. It was the first time the conference had been hosted in an Arabic country after two previous editions in Portugal and Italy. In the run up to the FIFA World Cup 2022 in Qatar, this event provided a unique opportunity for delegates and attendees to network with policy makers, governing bodies, practitioners, coaches, administrators, and medical specialists. The conference had a range of speakers give talks not just about the scientific aspects of football but also the kind of political, social and economic impact it has. It was one of the most enjoyable of weeks during which I learnt a lot, networked with some of sports science's greats and also made some amazing friends. I would highly recommend it to anybody who is considering being a part of it in the future.

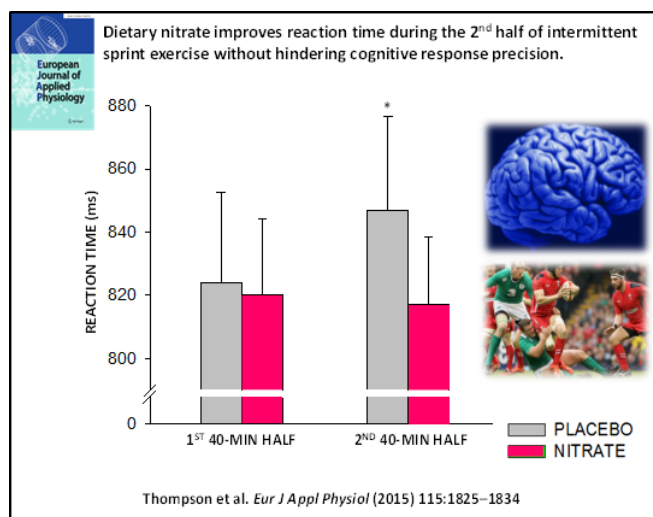


# Dietary Nitrate Supplementation and Soccer



“By: Chris Thompson and Andy Jones  
University of Exeter, UK”

The interest in nutrition as a means of optimizing sport-performance has never been greater. A surge of scientific inquiry into the physiological effects of certain nutrients has resulted in an ever-increasing evidence base that athletes and coaches can draw upon. In turn, this has promoted the widespread use of certain sports supplements/sports foods in athletic preparation. In particular, dietary nitrate supplementation, often consumed as beetroot juice, has rapidly grown in popularity amongst sporting men and women in response to the mounting evidence of its ergogenic effect in a number of exercise settings.



In 2007, it was first demonstrated that dietary nitrate supplementation reduces the oxygen cost of exercise (Larsen et al. 2007). This finding has been observed in a number of exercise modalities including cycling (Cermak et al. 2012), running (Lansley et al. 2011) and even kayaking (Muggeridge et al. 2013). The effect of nitrate supplementation on the physiological response to exercise has notable implications for exercise performance i.e. any improvement in muscle efficiency would enable higher a power output for the same energy cost.

Recent research suggests that nitrate supplementation may be more beneficial to type II muscle. Type II muscle fibres, or fast twitch muscle fibres, are those that are preferentially used during high-intensity intermittent exercise including team sports such as soccer. Using the Yo-Yo intermittent recovery test level I (Yo-Yo-IR1; a validated test widely used to replicate the high-intensity intermittent running of soccer match-play) two studies from our group at the University of Exeter have shown marked improvements in the distance covered during the test following short term nitrate-rich beetroot juice supplementation (Wylie et al. 2013; Thompson et al. 2016). As part of one of these studies, participants were also asked to perform a series of sprints over distances typically covered during team-sport match-play. The results show that nitrate supplementation reduced the time it took

participants to sprint 5, 10 and 20 m. Based on this evidence, nitrate supplementation appears to increase the amount of high-intensity intermittent running that can be performed as well as improve the speed of maximal sprints over short distances.

Another important, yet often overlooked aspect of team-sport is the ability to make quick and accurate decisions whilst simultaneously performing bouts of high-intensity exercise. Since improved blood flow to areas of the brain responsible for decision making has been reported following the ingestion of a high nitrate diet (Presley et al. 2011) it is possible that nitrate supplementation could enhance the ability of athletes to make decisions during exercise. In a study designed to mimic the duration (two 40 min halves) and physical demands (sprint and low-intensity exercise) of team sport play, nitrate supplementation improved decision making reaction time in response to a series of cognitive tasks while simultaneously enhancing the capacity of participants to perform the sprint exercise (Thompson et al. 2015).

The reported effects of nitrate supplementation are thought to be the result of elevated nitric oxide availability. Nitric oxide is known to play a number crucial roles relating to metabolism and blood flow. Consuming nitrate-rich foods such as spinach and beetroot can have beneficial effects on cardiovascular health. The above evidence suggests that a high-nitrate diet can also favourably affect the function of working muscle and may improve cognitive function. These effects may be particularly useful in soccer where small improvements in sprint and cognitive performance could make all the difference.

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# Choosing the right soccer shoes with the right studs



“By: Dong Sun, Zhiyi Zheng, Li Yang, Yanhao Shao, and Yaodong Gu

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Soccer is one of the world’s most popular sports and is enjoyed by many persons through playing at all levels. The biomechanical factors relevant to success in the game of soccer are those related to the technical performance of skills, the equipment used and the causative mechanisms of injury (Bentley, Ramanathan, Arnold, Wang, & Abboud, 2011). Differences in playing surfaces require different footwear characteristics to optimize performance (Lees & Nolan, 1998). Studies comparing shoe-surface interactions in soccer are normally focused on the type of turf surface and outsole cleat design. Owing to long-term cost profiles, increased durability and more consistent field conditions relative to natural grass, there has been a steady increase in the use of artificial turf surfaces at all levels of competition in a variety of sports. Soccer is characterized by changes of speed and direction that occur every 4–6 s during game, including cutting and turning movements (Hennig, 2011). During changes of direction the pivot leg initially decelerates the body, torso or pelvis then rotates away from the pivot leg towards the new direction. It is well known that the ability to perform fast cutting maneuvers is decisive to succeed in soccer. These cutting maneuvers are characterized by substantial changes in speed, requiring large horizontal impulses exerted by the feet on the surface (Clarke & Carré, 2010).

sport performance. It was found that cleat or stud shape and length as well as their arrangement across the outsole will modify the interaction of the shoe with the ground and produce different traction properties (Müller, Sterzing, & Milani, 2009).

Our recent investigation found as cleat length increased from 0% to 50% to 100% of its original length, straight accelerating and cutting performance will be improved with longer cleats.


Different outsole configurations provide altered traction characteristics that influence running time, traction perception, ground reaction force, and mechanical traction properties. Previous study has highlighted traction between shoes and surface as a leading cause of ankle and knee injuries in soccer (McGhie & Ettema, 2013). Noncontact sports injuries often occurs in knee, ankle and foot, current studies had shown that these injuries closely related to the design of soccer shoes and turf conditions. Müller (2009) found that the firm ground design, artificial ground design and experimental prototype showed biomechanically a higher amount of utilized traction compared to soft ground design on artificial turf surface. In contrast, the longer stud configuration of soft ground design resulted in higher availability of mechanical traction (Müller et al., 2009).

prove athletic performance, but higher traction may lead to knee abduction moment significantly increased, which will increase the risk of ACL (anterior cruciate ligament) injury.

## Advices:

1. Longer and more aggressive studs’ soccer shoes should be chosen for natural turf, such as soft ground design and firm ground design; and shorter studs’ soccer shoes should be selected on artificial turf, such as artificial ground design and turf cleats.
2. Higher traction of longer and bladed studs could produce more grip which allows athletes to cutting rapidly without skidding, however, higher traction might lead to risk of slip resistance and foot fixation which might increase the load of lower limbs.
3. Professional soccer players should select soft ground design soccer shoes on natural turf to improve traction and performance. Sub-elite and amateur players would better select firm ground design and artificial ground design to avoid non-contact injuries.

**Table 1:** Parameters of different studs soccer shoes

			
Studs design	Soft ground (SG)	Firm Ground (FG)	Artificial Ground (AG)
Number of studs	11	11	
Length of studs	16-22mm	12-16mm	8-12mm

During athletic movements, shoes are considered to play a vital role in the transmission of forces from surface to athlete. Soccer players greatly rely on the design of their footwear to enable optimum performance (Grund & Senner, 2010). The soccer shoes provides grip to the playing surface, protects the foot, and facilitates ball control. To ensure that player can successfully perform the movement with minimal slipping, sufficient traction at the shoe-surface interface is extremely important for

However, these high mechanical traction properties caused reduced running performance compared to firm ground design and experimental prototype. Previous studies had shown that stud type, stud length, and stud geometry on various surface conditions would influence running performance (Schrier, Wannop, Lewinson, Worobets, & Stefanyshyn, 2014). During sidestep cutting movement, longer studs would provide more grip to im-



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# Assessment Repeated Agility in Soccer Players



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## Preface for the repeated agility

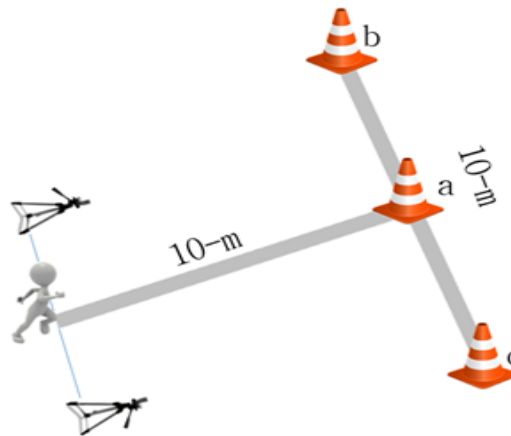
Soccer is a complex sport with irregular movement patterns with players performing repetitive maximal, or near-maximal, multidirectional sprints of short duration during a match (Di Salvo et al. 2010). Consequently, previous investigators have developed repeated sprint tests to assess soccer players (Schimpchen et al. 2016). Findings using time-motion analysis indicate that the players perform a variety of explosive movements, such as forward and backward shuttles and changes of direction, sustain vigorous muscle work and multidirectional displacements in forward, lateral, and backward directions continuously throughout the game (Robinson et al. 2011) in response to visual or auditory stimuli. Consequently, the player is required to change directions with a minimum loss of speed, balance, and/or motor control in reply to a stimulus (Fessi et al. 2016). These requirements are widely reported in the agility literature. This is what makes many of the recent research posit the external validity of classical tests of repeated-sprint ability in soccer (Schimpchen et al., 2016). In this context, recent researchers launch of a new repeated-sprint ability test based on multidirectional intermittent efforts dubbed as repeated agility test. In this note, we will present the Repeated Sprint T-test (RSTT), which is considered a reliable and valid tool for assessing players' ability to repeat sprints with many changes of directions/agility. Which sports scientists, strength, and conditioning practitioners, within an assessment battery of tests for monitoring the training programs for team soccer players.

## Presentation of the Repeated Sprint T-test (RSTT)

The Repeated Sprint T-test (RSTT) is a reliable and valid tool for assessing players' ability to repeat sprints with many changes of directions/agility (Fessi et al. 2016). The aim of the RSTT is to simulate parts of the real soccer game. This simulation is justified as the RSTT includes short, intense efforts separated by recovery periods between sprints, and secondly, this test contains various displacements in multidirectional modes, i.e. running forward laterally and backward.

## Procedure of the RSTT

The RSTT consisted of seven maximal repeated executions of the gold standard agility T-test with 25-s of active recovery. Within each between-sprints recovery period, subjects tapered down from the sprint just completed and slowly walked back to the next start point and waited for the next audio signal. The T-test for agility (Figure 1) was selected to construct the RSTT because it is a reliable and valid measurement of the ability to rapidly change directions and speed (Pauole et al. 2000) based on stop-and-go planned agility with multidirectional displacements.



## Scoring System in the RSTT

The performance indices of the RSTT were: best time (s), total time (s), and fatigue index (%), where best time was the best time of seven sprints, total time was the sum time of seven sprints, then fatigue index was calculated as follows:  $FI = ((TT / (BT \times 7)) \times 100) - 100$ .

## Considerations in achieving the RSTT

Before testing, participants warmed up standardly for ten minutes; this was based on jogging, dynamic stretching exercises, and some acceleration at a short distance. After five minutes of recovery, subjects began the test. Standard verbal encouragement was consistently given for participants throughout the tests. Before conducting the test, ensure the surface is non-slip and consistent. It is recommended that the test administrators adopted the height of the timing gates

for each subject. If timing gates are not available, then it is imperative that the test administrators understand the inconsistencies of using a stopwatch for their results. It is important for administering this test to know that after a training program with male athletes if changes greater than 0.09 s, 0.58 s and  $\pm 0.54\%$ , in best time, total time, and fatigue index, respectively, occurred, this means that the investigators can be 95% certain that the change in performance reflected real alterations in performance and exceeded measurement error.

Four cones were arranged in a T-shape, with a cone (a) placed 10-m from the starting cone and 2 further cones (b and c) placed 5-m on either side of the second cone. Players were asked to sprint forward 10-m from the start line to the cone (a) and touch the tip with their right hand, shuffle 5-m left to the cone (b) and touch it with their left hand, then shuffle 10-m right to the cone (c) and touch it with their right hand, and shuffle 5-m back left to the cone (a) and touch it with their left hand before finally backpedaling to the start line.



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# Football Conditioning: A Modern Scientific

## Approach

“By: Adam Owen

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Association football is considered to be the most popular sport in the world and is played by men, women and children within competitive and non-competitive environments throughout every continent. The ‘beautiful game’ as many call it at the professional level is a multi-million £pound industry with huge public and commercial interests that continues to evolve in many facets. It has been professed that football performance depends upon a myriad of factors inclusive of technical, tactical, psychological, physical and physiological (Owen et al., 2012; Nedelec et al., 2014; StØlen et al., 2005). It has also been professed that one of the fundamental reasons football is so popular worldwide is due to the fact that players may not need to possess extraordinarily levels in each of the performance areas highlighted above, but must require a reasonable capacity across the board (Ingebrigsten et al., 2012; StØlen et al., 2005). Traditionally, football practice has tended to focus primarily on the technical and tactical development of players to the detriment of their physical profile, whereas recent years have seen a shift towards the use of multi-purpose sessions with intentions of maximising the contact or working time players spend with the technical, physical and medical personnel.

Based on recent literature highlighting the use of slightly upgraded and reliable equipment, it may generally be accepted that on average, professional football players cover a distance of 9-12 km during match play (Di Salvo et al., 2006; Barros et al., 2007; Dellal et al., 2011). This book will attempt to discuss the time motion characteristics of the game at many levels but focussing on the elite level and how these movement profiles impact on the physiological demands imposed upon those players. According to recent literature, elite level football players have good endurance capacities with VO<sub>2</sub>max reported to range between 55 and 70 ml.min.kg<sup>-1</sup> (McMillan et al., 2005; O’Reilly and Wong, 2012) with the game being played at an average intensity close to lactate threshold (LT) situated around 80-90%

of HRmax (Helgerud et al., 2001; McMillan et al., 2005). Previous research has revealed a link between improvements in player’s aerobic capacity and increased distance and total number of sprints within competitive games (Helgerud et al., 2001), however further reports are needed to clarify this at the very elite level. According to Dellal et al., (2011) football is predominantly an ‘acyclic’ game in which players repeatedly run short distances at a variety of speeds, whilst also covering a substantial distance over the course of a game. It is these short anaerobic bursts that generally decide the outcome of the game (Owen et al., 2012). Strength training within football has

of all ages, abilities and levels of play. Increasing the efficiency of the training process and ensuring that key components of the game (i.e. technical, tactical, physical) are being developed in conjunction to each other rather than in isolation is fundamental to the development of this book set. In order to achieve this, the most popular current training methods used on a daily basis within the elite professional level of game will be discussed. The use of training games (e.g. small, medium and large-sided games) within all levels and abilities of football is a fundamental training method and well documented, however according to previous research there is relatively little information regarding how these specific functional training games can best be implemented as part of a structured training session in order to collectively improve physical, technical and tactical capacities of football players (Hill-Haas et al., 2011).

Integrating the use of various training games as part of the technical coaching programs within football training, ensures coaches have the opportunity to maximize their contact time with players, increase the efficiency of training and subsequently reduce the total training time due to their multifunctional nature (Dellal et al., 2008; Owen et al., 2004). Various sided training games have also been suggested to increase player motivation to train when compared to generic running intervals eliciting the same intrinsic loading (Hill-Haas et al., 2009). Within this particular book set, specific justifications for football training games and functional practices will be suggested and discussed in order to promote a more efficient training methodology beneficial for coaches working with a range of playing levels and abilities.

### Physiological Demands of Football



It should be noted that straight sprints leading to goals scored for the assisting players were mostly conducted with the ball (93 out of 360 goals). To conclude the work of Faude et al., (2012), straight sprinting is the most frequent action performed by either the assisting or scoring players within competitive match-play situations that lead to goals. Subsequently, it should

be noted that power, speed and most importantly the ability to reproduce sprints to a high level are of paramount importance within decisive situations in professional football and therefore, should be included in both fitness testing and training situations.



#### KEY POINT:

Power, speed and most importantly the ability to reproduce sprints to a high level are of paramount importance within decisive situations in professional football and therefore, should be included in both fitness testing and training situations.



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Football Conditioning: A Modern Scientific Approach

recently received more exposure and is suggested to assist from both a performance and injury prevention perspective (Campos-Vazquez et al., 2014; Enggebretsen et al., 2008; Ekstrand et al., 2011).

The development of this two-book set was to make use of the contemporary knowledge within coaching and football science to ultimately further educate individuals working with players

# Continued..



Furthermore, setting aside its emergence as a useful training modality for aerobic-fitness and technical-tactical skill development (Hill-Haas et al., 2011), it seems, when compared to actual match play, SSGs may be of insufficient intensity to simulate high-intensity and repeated-sprint demands (Casamichana et al., 2012; Gabbett and Mulvey, 2008). These suggestions are reinforced by the reported potential ceiling effect associated with a failure to achieve high exercise intensities in players retaining either high aerobic endurance capacities or technical competency, respectively (Buchheit et al., 2009). As identified within the literature the proliferation of high-intensity and repeated-sprint demands is more associated with match-play and can potentially be achieved through introducing larger-sided games formats (Hill-Haas et al., 2009). These findings may be as a result of large-sided games (LSGs) being played on increased pitch sizes combined with the fact that players in these game formats have less involvement with the ball (Owen et al., 2011).

The larger game formats may induce different responses as a result of increased number of sustained high speed/high intensity runs occurring when working 'off the ball' in order to lose opponents or create goal scoring and/or advantageous goal scoring opportunities.

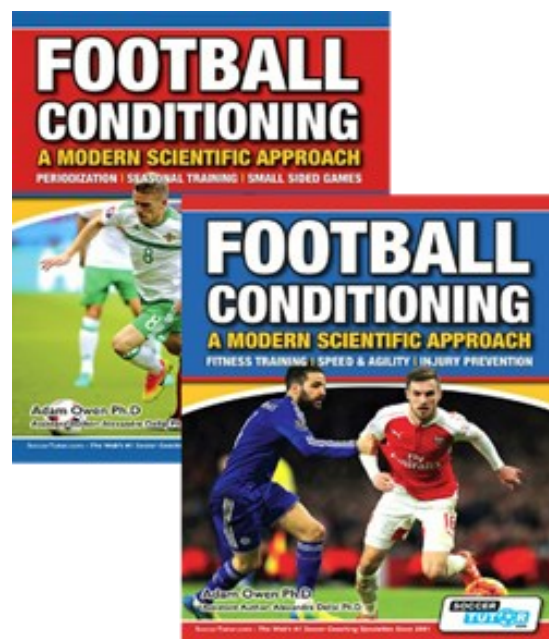
In addition to earlier, intentions of this book are to draw from current literature in order to establish the key physical, physiological, technical and tactical demands imposed upon players at the elite professional level of the game. Having outlined and linked these specific demands and in turn highlighted key physical-technical components needed for physical performance development at the elite level, the primary aim of the book set is to further develop the link between contemporary coaching methods and football science principles in order to maximise efficiency of training sessions and contact time with players. Finally, having generated a discussion based on previous research within the set, attempts to highlight the need for careful preparation, advanced planning, recovery and the successful implementation of a sport specific injury prevention strategy will be proposed in addition to key performance nutritional strategies. Across both books, the main topics discussed along with specific conditioning and training sessions are as follows: fitness training;

speed and agility; injury prevention; periodisation; seasonal training; small-sided games.

Currently, we have received lots of positive feedback on the book set from youth, amateur, semi- and professional football coaches working within the game, in addition to coach educators, current players and sport & fitness conditioners and sport scientists. The book set can be purchased directly from the editors

at <http://shop.soccertutor.com/URLRewrite.asp?404;http://shop.soccertutor.com:80/Football-Conditioning-Periodization-Training-p/st-b036.htm> or following the links directly from my website [www.aoperformance.co.uk](http://www.aoperformance.co.uk)

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## Call for abstracts 20-21 July 2017, Ningbo University, China

The ISAF organizes regular events and activities worldwide, where highly reputed scientists and football coaches and fitness specialists provide clinics, workshops, roundtables and plenary talks to those who are interested within professional football careers, in addition, the events provide an extraordinary network opportunity and also a chance to gain a football fitness coach diploma (subject to quality assured assessments). The ISAF 2017 will be held in Ningbo University, Ningbo, China.

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Line space: Single

Margins: 2 all sides

Title of the abstract (font size 12, bold)

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# Assessing football players' cardiovascular fitness: More thoughts should be paid for test-specificity



“By: Monèm Jemni

Department of Sport Science, Qatar University”

It is important that players and coaches have access to objective information on players' physical status for selection and training purposes. Plenty of fitness tests can provide this information. Physiological testing of soccer players in laboratories and field settings are very common, but both methods have been questioned because of their specificity issues (MacDougall & Wenger, 1991) and accuracy (Balsom, 1994) respectively.

Assessing cardiorespiratory and metabolic capacities of the player enables enhancement of individualized training interventions, assists in player selection, monitors injury status, highlights overall physical performance, physiological weaknesses and also aids in screening of major health related issues. Monitoring these variables is becoming a priority within football clubs as the increase in sport science spending checklist following the FIFA's pressure on the clubs' chairmen for thorough health screening. It guarantees “free injuries” and allows a health portfolio for each player that could be followed throughout the season by testing and retesting.

This information can be useful in player selection, training interventions, during rehabilitation from injury, as well as a motivation tool for players. This data is principally achieved by tests of physical performance either in laboratories or in the field. Good aerobic capacity is recognized as an important physical attribute in footballers, among others [agility, power, strength, flexibility (Jemni et al 2014)]. Currently, football players have their direct aerobic fitness assessed in laboratories using treadmills or cycle ergometers, whilst indirect measures (using estimation of aerobic performance) are performed in the field, typically comprising multiple shuttle runs back and forth over a set distance. However, running on a treadmill and cycling are not specific exercises for footballer. Although this later runs during training and games, running is more appropriate for runners to be used for testing and cycling for cyclists. Footballers integrate many technical skills and multi directional running during a game. The laboratory based protocols lack validity as they do not include movement patterns and intermittent activity observed in football match play, and have been shown to lack sensitivity. The established field-based tests are more specific to football than laboratory protocols as they usually include an intermittent element, yet lack accuracy as they estimate aerobic capacity based on variables such as test level achieved. Also, the shuttle run tests that are most commonly used only feature running in a forward direction at incremental speeds.

Despite the technological revolution and developments in testing protocols, there still no single test that is considered entirely specific to football seeing the complex nature of the game. May be a holistic approach including fitness testing, physiological data, as well as anthropometric and skill performance measures are necessary to gather the players' full picture.

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# TRAINING YOUTH SOCCER PLAYERS: INTEGRATED TRAINING



“By: Antonio Carlos Gomes, Clovis Alberto Franciscan  
Sport Training-Brazil, Brazilian Academy of Coaches ”

## Introduction

The training of youth soccer players is becoming ever more specialized. For this reason, more time is spent on focused, specialized training as compared to time spent on general training techniques. Nowadays, both the amount and intensity of training increase very quickly. The literature discusses the training processes, based on different aspects, and the sensitive periods of motor development that serves to guide this process.

Consequently, technical, tactical, physical, and psychological preparations are all part of today's training process.

## Technical Preparation

Technical preparation is one of the main goals of the training program. The Integrated exercise method is applied in this case where specific skills are trained based on the goals. Maznitchenko (1977) states that in order to master new techniques the fragmented exercise method should be used since it helps to perfect and improve motor skills in young players. The ideomotor method is also recommended. It emphasizes the mental training of movements and improves their assimilation (Platonov, 1984). At this stage of preparation, it is advisable to watch soccer videos displaying elite players in action. In order to achieve substantial, technical improvement, mistakes made by young athletes should be corrected during the formative years. Techniques should be developed during both the training sessions and tournaments and in this case techniques should be agreed upon during the official games and later repeated with more detail in the training sessions. In order to improve performance quality, the technique should be performed along with the method used during the tournaments. Young players will achieve successful results in tournaments if they get into the habit of analyzing, assessing, and regulating how their muscles feel while performing. For this reason, the techniques required for this sport have to be repeatedly performed and perfected through many years of practice when training children and young and older players too. Delivering an outstanding performance does not depend on whether the player is gifted or not but rather on the amount of practice and training using the correct technique (Maznichenko, 1977).

## Tactical Preparation

Tactical preparation should also be emphasized in the training program. Prior to the beginning of competition players must improve and perfect their tactical skills in order to effectively deal with match situations. By doing so, they can develop a “game ready” mindset which allows them to implement their tactical plans successfully. Finding out the opponent's tactical plan is paramount. It can be done by observing their plan's features before and during tournaments. All information regarding strategic play should be analyzed. Tactical formation in soccer varies much more than in individual sports. In many sports, tactics are divided into team tactics, group tactics and individual tactics. Consequently, the coach should focus on mastery of tactical group play and on linking elements that enable these strategies to be performed by the team as a whole. All players should understand each tactical formation and the

desired result. As players improve their performance, the speed of execution becomes ever more important. It is crucial to prepare players from a theoretical standpoint so that they understand the tactics and strategy and are able to visualize, exactly, what they have to do during the matches. Youngsters should always be encouraged to be creative since it helps them to significantly improve their movement / performance intelligence during the competition.

## Physical preparation

When training motor skills the phases of development should be taken into consideration. There is a wide range of age within each phase that depends on genetics, training and social and behavioral aspects. Zakharov and Gomes (1992) consider 13 years old as the average age for the initial stage of specialization, 15 years old as being the phase in which more detailed work is performed, and 17 as an advanced phase. This study draws attention to the sensitive periods of motor development which places priority on certain skills in certain phases according to the rate of growth and the biological maturation of the young player (table 1).



**Table I**

Young athletes' motor skills and motor capacities developmental stages.

Stages	Preliminary Preparation	Initial Specialization	More Detailed Specialization	Maximum Potential	Keeping the Maximum Potential	Maximum potential Decrease
Age Group	10-12	13-15	16-18	19-22	23-26	27>
Content	Motor skills Training motivation	Motor skills and abilities Technique, tactics, and emotional control	Motor skills Technique, tactics, and emotional control	Results improvement Improvement of performance in competitions	Technique Tactics Strategy	Tecnique Tactics Strategy

### Mental Preparation

During the period of transition from childhood to adolescence the coach plays a major role in the development of the athlete's personality. Group and individual relationships are a crucial aspect of training and coaches should pay special attention to them during the training sessions. The age range from 15 to 18 is extremely important to the person's development since at these ages the opinion about the environment is formed. Proper training should foster players' courage, competitive drive, and desire to participate in competitions. In addition, it should motivate them to reach their full performance potential with emotional stability. This is successfully accomplished when correct training methods and competition opportunities are presented to young athletes.

### Closing remarks

Preparation for soccer can be successful and can promote good health as long as the sensitive periods of motor development are taken into consideration. Besides that, the training process should integrate all the mentioned aspects since the learning of technical skills occurs more intensely at the age of 13 to 15. In order to perfect these skills young players should have perform a variety of childhood movement activities to enrich their experience.

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# How could footballers take advantage from the proprioception exercises when training in the heat?



“By: Khouloud Mtibaa

Department of Sport Science, Qatar University”

The limitations of exercise performance have fascinated humans for thousands of years, and one of the most relevant issues was the effect of hyperthermia on exercise capacity in humans. In fact, the hyperthermia can be defined as an increase in core temperature above the set range specified for the normal active state of humans, which is 37°C at rest and 38°C during moderate-intensity exercise (The Commission for Thermal Physiology of the International Union of Physiological Sciences, 1987). Recently, a large amount of researches in hot environment have focused their attention on the effect of different kind of hyperthermia on the neuromuscular performances (Racinais, Gaoua, & Grantham, 2008; Thomas, Cheung, Elder, & Sleivert, 2006). Actually, a moderate increase in body temperature especially in muscle temperature may improve performances during short duration exercises (Racinais & Oksa, 2010). This positive muscle-temperature relationship has been confirmed by Racinais and Oksa (2010). These authors stated that a variation in muscle temperature of 1°C could modify performance by 2-5% depending on the contraction type and velocity. However, an improvement in hot environment has not always been observed. An excessive increase in body temperature especially in core temperature impairs neuromuscular performances. Several studies showed that there is a decrement in voluntary force production, in muscle voluntary activation (VA) and in H-reflex amplitude and latency with passive hyperthermia (Racinais et al., 2008; Thomas et al., 2006) or exercise induced hyperthermia (Nybo & Nielsen, 2001). In addition, the extremely high muscle temperatures observed in football (Mohr, Nybo, Grantham, & Racinais, 2012) may also impair muscle function through both contractile (Poel & Stephenson, 2002) and neural (Racinais et al., 2008) alterations. Therefore, these impairments will likely affect fine motor control, postural control and proprioception. Football has the highest participation rate in the world with more than 200 million players worldwide. It is known to be associated with a relatively high injury rate. Joint sprains are a primary injury type in sport, and accounting for approximately 20% of all football injuries (Hägglund, Waldén, & Ekstrand, 2005). In an audit of injuries in English professional football (Hawkins, Hulse, Wilkinson, Hodson, & Gibson, 2001), knee and ankle joints accounted for 34% of all injuries, with the most common injury type being a joint sprain injury and it might be attributed to a joint failure to produce those appropriate muscular responses that have a protective function in maintaining joint stability (Hiemstra, Lo, & Fowler, 2001). In other word an impaired proprioceptive capacity and postural stability (Murphy, Connolly, & Beynnon, 2003). Of note, with hyperthermia-induced fatigue, these alterations might be exacerbated. Therefore, when exercising in hot ambient environment, in addition to the exercise-induced fatigue coaches, athletes and physical coaches should pay lots of attention to the heat stress alterations that might impair proprioception and consequently affect the performance and increase risk of injury. In fact, proprioception can be defined as the sensation of the joint movement and joint position allowing us to per-

ceive the space around us and react rapidly in changing circumstances. It comprises joint position sense and kinaesthesia (Lephart, Pincivero, Giraldo, & Fu, 1997). Thus, good proprioception is important for promoting dynamic joint and functional stability in sports. Recently, the proprioceptive component in sports medicine practice, training and rehabilitation programs is highly recommended. The attentions have been focalized on how to improve the proprioception due to (i) its great importance as a kind of injury prophylaxis, and to (ii) its preventive aspect of unnecessary

ligament sprains and joint injuries (O'Connor & McConnaughey, 1978). In addition, proprioception exercises accelerate the rehabilitation with greater safety.

## What to do?

- ⇒ Solid proprioceptive and strength training to effectively stabilize the joints for a better muscular and postural control.
- ⇒ • Performing pre-participation screenings before competing in the heat to watch at risk individuals.
- ⇒ • Players exposed to thermal stress must consider their hydration status and electrolyte balance before during and after exercise.
- ⇒ • Considering cooling methods or cold drinks might help to potentially sustain performance by lowering the core temperature.
- ⇒ • The influence of heat acclimatization on football performance might likely reduce these heat stress alterations, but this needs to be investigated in future studies.



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# Interview with the newly accredited Qatar Anti-Doping Lab.



“By: Mishaal Al-Ansari

Qatar Anti-Doping Lab.”

**Being the first laboratory of its kind in middle east and west Asia, take us through the history of this place and how was it established.**

*The idea of having an Anti-Doping Laboratory in the region has first arisen back in 2007. It was first brought up in the Gulf Cooperation Council Summit meeting which was held in Doha – Qatar on the 4<sup>th</sup> of December, 2007.*

*When Qatar expressed the will to host this lab, the GCC countries welcomed the idea unanimously and gave their blessings and commitment to the initiative.*

*A team led by His Excellency Dr. Mohammed Ghanim A. Al Maadheed and supported by Dr. Mohammed Alsayrafi as the Project Executive Director, currently ADLQ General Manager, was chosen to implement this idea into reality.*

*From the ground breaking ceremony of the building back in March 2010, ADLQ has been following the strict schedule to achieve the WADA and ISO accreditation.*

*The Building Inauguration was in December 2012.*

*Now we stand in the beginning of 2017, ADLQ has achieved compliance with ISO/IEC 17025, accreditation for the tests of Athletes Biological Passport (ABP) and finally full WADA accreditation. We are working towards Animal Doping Testing which is a service only a few WADA accredited labs are offering.*

**What is Athlete Biological Passport and why is it important? What kind work you have done in this area?**

*Athletes Biological passport testing is a relatively new kind of testing and is becoming vital in the war against Doping. (It is to monitor selected biological variables over time that indirectly reveal the effects of doping rather than attempting to detect the doping substance or method itself).*

*Its importance lies in the fact that it allows for the long term monitoring of an athlete's biological data in both blood and urine as well as the monitoring of potential markers that indicate doping*

*ADLQ is one of the few accredited Labs that have accreditation for the Blood Components. We have achieved this accreditation back in 10<sup>th</sup> February 2014 and have been receiving and analyzing samples since.*

**Is it important for ADLQ to be an independent entity, separated from Qatar's sporting agencies?**

*Of course. ADLQ is an independent entity reporting directly to His Highness, The Emir of the State of Qatar, Shk. Tameem Bin Hamad Al Thani in order to guarantee the lab's objectivity and credibility.*

**Considering the main mission of ADLQ which is, creating a fair environment for athletes to compete by eliminating drug use in all sports, what procedures and ways ADLQ uses to identify the new ways of cheating by athletes and coaches?**

*ADLQ has an annual symposium that gathers people from the profession with their expertise; they discuss the latest in the Doping field. Each year from a different perspective.*

*In addition to various cutting edge research conducted by the team.*

**What activities other than anti-doping investigations does ADLQ do?**

*ADLQ has two other main Labs giving different services to the community:*

*Toxicology and Multi-Purpose Lab which provides various analytical services related to Health and Safety in the Workplace through Drug testing, in addition to analyses of different items like : analyses in environmental health and toxicology, food and safety*

*Life Sciences Research Division: which carries lot of research in topics directly related to athletes health and their performance, as well as Public Health.*

**How successful was ADLQ in its missions until now and what are the plans for further developments?**

*Very successful indeed if we consider the time ADLQ took to achieve accreditation. Number of tests conducted in the first year. We are very proud to state that we have been receiving samples from all over the world except for the America's continents.*

**Is there any upcoming symposiums or conferences organized by ADLQ open to public?**

**Many!**

*ADLQ holds a regular CAFÉ Scientifique gathering, that takes place in ADLQ Building itself and discusses different topics every time and it is open for experts of that particular subject as well as interested public.*

*In addition, we have the annual symposium which will be held this year on the 2nd and 3rd of May under the title (Anti-Doping in Humans and Animals: Biomarkers & Threshold Substances)*

*In addition, we will have the 5th Junior Scientists Symposium which is an annual event as well, aiming at giving support and help to the young researchers and scientists. It is usually conducted in November or December.*





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Desn Football Club operated in 3 training centers with more than 100 students. By the end of 2017 the number of the training centers will increase to more than 10 with 2 elite centers, with an estimation of 500 students. The vision of Desn FC is to create a new generation of well-educated and technically good players in China.

#### **Duties & Responsibilities**

Candidate will be responsible of:

- ⇒ Plan and organize football sessions for different age groups
- ⇒ Liaise with teacher at schools and other staff at Desn Club
- ⇒ Maintain and keep record of the equipment
- ⇒ Ensure a good and safe training environment for the kids
- ⇒ Organize and participate in school events
- ⇒ Complete paperwork and other responsibilities on time

#### **Application Deadline:**

Applications will be open until fulfillment

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## FORWARD

“By: Simon Chadwick

University of Salford, UK”

In November 2014, China’s President Xi Jinping announced his vision to create a domestic sport economy worth US\$850 billion by 2025. At the heart of this plan, Xi proclaimed that he wants football to drive the country towards his vision. The centre-piece of the president’s wishes is for China to win the right to host the World Cup and, eventually, for the men’s national team to win the tournament.

During 2015, Chinese businesses consequently began enacting Xi’s plans by engaging in football, from the elite professional through to the grassroots levels. Internationally, stakes in several European football clubs were purchased, including at Inter Milan, Manchester City and Atletico Madrid. While corporations such as Wanda, Alibaba and Fosun all acquired sports properties including agencies, media rights businesses and sponsorships.

Chinese international investments in football in 2016 were no less intense. England’s West Midlands region is perhaps the most potent symbol of this, with all of its leading clubs (West Bromwich Albion, Aston Villa, Wolverhampton Wanderers and Birmingham City) now owned by Chinese investors. Such investments are intended to a means through which China can learn about football, but also a way of building a sustainable investment portfolio and also extending the country’s soft power influence.

Domestically in China, the situation over the last two years has been no less intense. At the elite professional level, there has been an influx of both playing and management talent, with the likes of Hulk, Jackson Martinez, Gustavo Poyet and Marcello Lippi all now working in China. Yet grassroots football has also been attracting attention and investment, most notably in China’s football development plan (which was published in early 2016).

The plan set several targets, most notably including: by 2020, China to have established 20,000 specialist football schools, 70,000 pitches, between 30 million and 50 million primary and middle school students regularly playing the game. By 2030, it is expected that 50,000 specialist football schools will have been set-up, China’s male national team will one of Asia’s best, and its female national team will be established as being world-class. And finally, by 2050, China wants to a first-class football superpower in top-20 FIFA rankings, have hosted and won the World Cup.

As a result of China’s sudden interest in football, there has been a consequent growth in research opportunities for academic researchers working in the fields of sport and football. In turn, for subject specific researcher’s multiple opportunities have arisen to engage in a broad range of studies. Those working in business and management, international

relations, sports development, football coaching, and health and life sciences are among researchers who now have the chance to work on China-related projects.

Whether or not China can win the men’s World Cup by 2050 is a contentious issue that is now routinely debated by football observers all over the world. Irrespective of the outcome, there is however no doubt that the country represents a major new front for research. The coming years are therefore likely to be interesting and exciting ones for IFSA and its members.

Further insights into China’s football revolution can be found via <http://www.policyforum.net/authors/simon-chadwick/>

### About the author

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# African Footballers Global Mobility

“By: Gerard Akindes

Josoor Institute Doha, Qatar.”



African football players are the second-largest group of athletes playing outside their continent of birth. Figures 1 (from the International Center for Sports Studies or CIES) shows the European and Asian numbers of the global spread of these players. In fact, the migration of African footballers is an enduring pattern initiated during the 19th century. The first African-born footballer to play in Europe was Arthur Wharton. Wharton was born in the Gold Coast (now Ghana) and played football in England between 1889 and 1902 (Vasili, 1998). The flow of players moving from Africa to play professional football in Europe becomes consistent later in the 1930s in France, Portugal, and Belgium.

From 1932, when football became professional in France, African footballers were recruited mostly from the Maghreb. One of the first footballers—and also one of the most talented—to play in France was the Moroccan Larbi Ben Barek (the “Black Pearl”). He joined the Olympic de Marseille in mid-1938 and played his first game with the French national team on 4 December 1938 against Italy (Dietschy, 2010). After Larbi Ben Barek, many players from North Africa, such as the Algerian Rachid Meckloufi, had successful careers with French clubs and the French national team in the early 1960s. In Portugal and Belgium, the first African football players were recruited from these nations’ colonial territories. For example, in 1954, Marion Coluna arrived from Mozambique to play in Portugal. Eusebio Ferreira Da Silva followed in 1961. These two players, Coluna and Da Silva, are still ranked among the greatest players Portugal has ever had. Da Silva was the top scorer at the 1966 World Cup (held in England), and he supported the Portuguese and European leagues for several years. In Belgium, their first African player, Paul Bonga Bonga, arrived in the late 1950s. He was recruited by the Standard Club de Liege in 1957 (Akindes & Alegi, 2014). With the exception of Great Britain, the main European colonial nations initiated the development of migration routes from former colonies to their national leagues and clubs.

The African independence era from the late 1950s to the early 1960s did not alter

migration of the best African players. These athletes continued to be recruited by European clubs. The demand for talented African footballers increased from the 1960s to the late 1980s. Majoub Faouzi explains that the typical career trajectory of a talented African player of that era was to start in his village or small town, then move to a larger African city to play for a major club and a national team, and eventually migrate to Europe (CONFEJES, 2000). In the late 1980s, a combination of factors considerably transformed the trajectory of African football players’ migration to other continents.

This induced more competition for African talent and encouraged European clubs to integrate their recruitment strategies. The fourth factor that impacted the migration of African footballers is the degrading economy of most African countries. Global broadcasting of the best football clubs, leagues, and competitions continuously exposed African youth and footballers to the best played and produced football spectacle from Europe contributed to migration of athletes.

Since the first African football academy was founded in Côte d’Ivoire in 1993, many football academies were created in countries such as Côte d’Ivoire, Senegal, Ghana, Came-

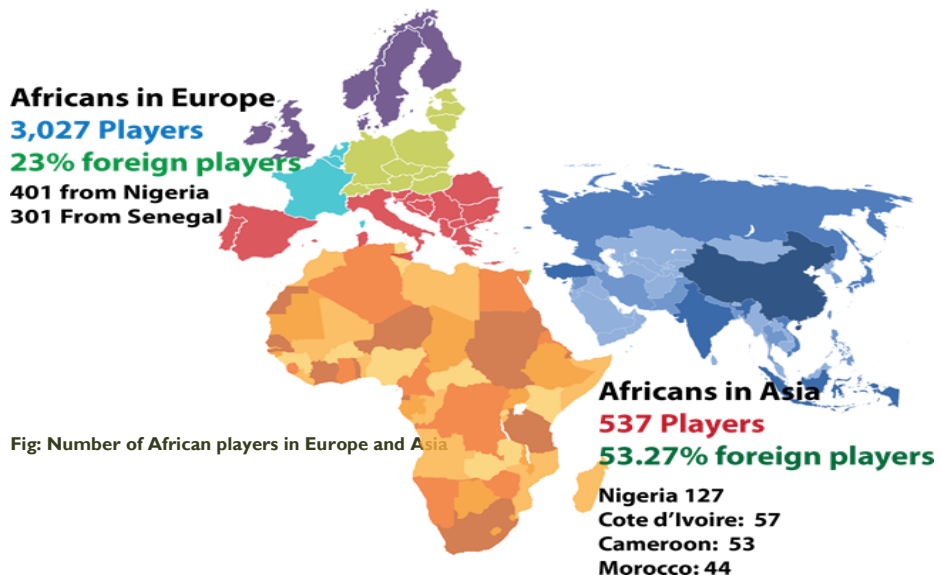


Fig: Number of African players in Europe and Asia

First, in 1978 at the FIFA World Cup in Argentina, the stellar performance of Tunisia and in 1982 the domination of Cameroon and Algeria created a new perception of African football. The collective capability of African footballers—not just the skill of talented individuals—became obvious to recruiters. Second, the introduction of youth FIFA world cups and the performance of African teams there created a recruitment platform for the recruitment of younger and younger African players. Third, the Bosman ruling and its liberalization of recruitment procedures removed many national barriers to recruitment for European clubs. Younger, lesser-known African athletes were less expensive to place under

contract. This induced more competition for African talent and encouraged European clubs to integrate their recruitment strategies. The fourth factor that impacted the migration of African footballers is the degrading economy of most African countries. Global broadcasting of the best football clubs, leagues, and competitions continuously exposed African youth and footballers to the best played and produced football spectacle from Europe contributed to migration of athletes.

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roon, and Nigeria (Darby, Akindes, & Kirwin, 2007). Regardless of the type of academy, their reliance on transfer money established export-oriented organizations feeding the migration of young African players. Even though a few of the players trained by the football academies play locally, the salary gap between a local contract and the income a potential European contract can offer is immense. A recent report on footballers’ working conditions in the world reinforced this fact. The World Players Union found that among the professional footballers in Africa, 73% earn less than \$1,000 a month, and many of them are not consistently paid (FIFpro, 2016). Additionally, most African leagues and clubs suffer from inadequate management, low-quality facilities, and limited financial resources.

# Continued..



Since the late 1980s, the economic and structural gap between African football and the European football, especially in the bigger leagues, had widened. African players continued to migrate to Europe with or without contracts. Decades after Ben Barek's career-changing move, European football remains the most attractive destination for young players. However, more destinations are now pulling African footballers.

The Arabian Gulf and South and Southeast Asia are experiencing a surge of excitement for football. As discussed by Akindes (2013), a new category of African player migrates to South or Southeast Asia where a few leagues offer relatively higher compensation when compared to the average wages available in African leagues. African football players are currently present in most South and Southeast Asia leagues such as Indonesia, Malaysia, Vietnam, India, Thailand, and smaller countries with no professional leagues. The global mobility of African footballers is becoming a reality (see Figure).

Since the 1930s, African footballers have become the second-largest group of football migrants after Brazilians. Many success stories can be told about the achievement of players such as Salif Keita in the 1970s, Roger Milla in the 1990s, George Weah in the late 1990s, and Samuel Eto'o in the 2000s. These players had exemplary careers in Europe, with personal and team success. The number of well-to-do African players with star status in European elite football has boosted the performance of African national teams and competitions. African football has acquired a positive image world-wide with more ability to compete on the global football stage.

However, along with the successful, famed athletes are hundreds of young football players who fail. Some never get the support they need to fully launch their careers. Stories of young players who are abandoned by unscrupulous agents or clubs and end up on the street emerge periodically (Ewanjé-Epée, 2010). Players who are not awarded contracts after making a good start are also part of the negative effects of the migration. The exodus of young talent has negatively affected the local playing level in Africa, contributing to the decertification of football stadiums there (Owumelechili & Akindes, 2014).

Tragic personal failures and other aspects of the down side of the African footballer migration suggest a need to seek solutions to limit the impact of migration on African players themselves as well as their sport's success or failure back home. Effective solutions would limit the need to migrate to achieve the dream of an internationally successful football career. To do so would require a mixture of improving local economic factors, changing some of the rules for leagues' and clubs' management, and reversing an overall low investment in sports in Africa to build viable opportunities for African footballers.

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## Sustainability of a Masters/Veterans 5-a-side Football

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An ageing population with increasingly sedentary lifestyles, reinforces the critical importance of lifelong participation in sports and active living experiences. Seniors' populations with greater wellness and athletic expectations also require quality sporting events in order to increase and sustain their participation levels (Dionigi, 2006; Semper et al, 2016). For example, there is a significant growth in the numbers of over-50's who wish to participate in adapted team sports such as football around the world. Meeting the diverse needs and circumstances of veteran players is a complex and multifaceted process. While sports science contributions (e.g., socio-cultural aspects, sport pedagogy, sport psychology, exercise physiology and sports medicine) have been very effective at enhancing active living in a variety of youth and adult sports events, very little has been documented regarding their efficacy for sustaining participation in seniors' football events. This paper examines the sustainability of the Universities Masters/Veterans 5-a-side Football World Cup (2006-2021) <http://faculty.educ.ubc.ca/hubball/worldcup16/index.html>

Universities are well-positioned to provide high level community engagement (local, regional and international) through sharing research expertise, leadership and excellent facilities. This unique World Cup Masters/Veterans Football Tournament is co-organized by university staff in order to promote and research excellence in masters/veterans football. Integral to this unique World Cup Masters/Veterans Football Tournament is an applied sports science symposium that focuses on practice-based research related to Masters/Veterans football in local and global contexts including: player and team development, physiology, psychology, small-sided game analysis, injury-prevention, coaching science, and socio-cultural perspectives of masters/veterans football.

The World Cup Masters/Veterans Football Tournament is strategically aligned with the aims and mission statements of international universities in the following ways:

- \* **Education** (through team and player development, sport and exercise knowledge and skills),
- \* **Science and Research** (through the international symposium with keynote presentations and

research poster displays),

- \* **Community Engagement** (through sport and healthy active living for an increasingly ageing population; student experiences and involvement)

- \* **International Engagement** (participating teams from around the world), and

Leadership (through show-casing excellence and facilities as international event hosts)

- \* **E.g., Human Development Outcomes p.8-9:** Qatar National Vision 2030

Informed by research and practice, the Masters/Veterans Tournament focuses on small-sided veteran football games. Five-a-side football is an active game modification with end-to end action which maximises the number of touches on the ball per veteran player. In addition to the benefits of 5-a-side veterans football, the physiological and psycho-social health benefits of competitive walking football have also been recently documented with the growing popularity of this rapidly emerging veterans sport around the world (Hubball & Reddy 2015). The veteran's world cup tournament combines these emerging small-sided game developments to provide an appropriately challenging and progressive hybrid veterans football tournament - Day 1 running 5-a-side football, and Day 2 walking 5-a-side football.

To foster diversity and inter-team's cohesion, the veteran's world cup tournament is limited to 10-12 representative teams of age-specific players (e.g., O55+) whom are selected from any club, community, institutional group or football association. Participating representative teams to date include countries from: Belgium, Canada, England, Spain (*FC Barcelona*), Germany, Great Britain, Greece, Hungary, Holland, Ireland, Morocco, Switzerland, Turkey, USA, and Wales. The *1st Masters/Veterans 5-a-side World Cup Football Tournament* (040) was held at the Chelsea School, University of Brighton, England, 2006. The *2nd Masters/Veterans 5-a-side World Cup Football Tournament* (045) was held at the University of Zurich, Switzerland, 2008. The *3rd Masters/Veterans 5-a-side World Cup Football Tournament* (045) was held at Aston University, Birmingham, England, 2010. The *4th Veterans/Masters 5-a-side (5-a-side) World Cup Football Tournament* (050) was held at Istanbul Universi-

ty, Turkey, 2011... The *9th Veterans/Masters 5-a-side (5-a-side) World Cup Football Tournament* (055) will be held at Swansesa University, Wales, 2017. The *10th Veterans/Masters 5-a-side (5-a-side) World Cup Football Tournament* (058) will be held at Budapest University, Hungary 2019; and the *11th Veterans/Masters 5-a-side (5-a-side) World Cup Football Tournament* (060) will be held at Qatar University, 2021 coinciding with the FIFA world Cup in Qatar 2022.

Interdisciplinary sports science research is central to the on-going development, implementation, evaluation, and scholarship of this masters/veterans world cup event. Longitudinal data suggest that fostering a networked improvement community that is grounded in event inquiry is key to the success of sustaining participation in this Masters/veterans world cup football tournament (Bryk et al, 2011; Friedman, 2008; Reid & Arcodia, 2002). In addition to critical leadership contributions, an eclectic range of age-appropriate and responsive football experiences are essential to ensure that Masters/veterans events meet the diverse needs and circumstances of their players (Lyons & Dionigi, 2007). For example, mixed and/or age/gender/ability-specific veteran football events; timely adaptations such as small-sided game structures including walking football; customized team and player development initiatives; as well as inclusion of fun/social elements of participation such as team penalty shoot-outs, mixed teams and veterans football communities in regional, national and international settings. Insights from this research will assist community programmers and coaches to better meet the diverse needs and circumstances of veteran footballers in diverse regional, national and international contexts.



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# How the ISAFSA has Helped My Journey in Coaching



“By: Sean Malcolm

Arsenal Soccer School, Saudi Arabia”



“This course exposed me to an elite environment which wouldn’t otherwise have been remotely possible through any other governing body”

“I have gained lifelong Friends and professional Acquaintances since attending the ISAFSA football Fitness Diploma ”



Football has taken me on a lifelong journey to various places around the world, however I can sincerely place my hand on my heart and say that this journey wouldn’t have been remotely possible without attending the ISAFSA Football Fitness Diploma & football & Science Conference in Sicily in 2011. This course exposed me to an elite environment which wouldn’t otherwise have been remotely possible through any other governing body. The opportunity to see Diego Simeone work closely with his first team players and have the pleasure of him giving us a talk on tactics, formations and his approach was the best experience of my career so far.

Having the opportunity to work alongside & network with 1st team coaches, academy coaches & sports scientists from massive clubs such as Inter Milan, Lecce, Palermo, Catania and the Italian Football Federation was an that be matched.

Since completing the Football Fitness Diploma I have gone on to Complete the UEFA A license with the English FA as well as FA Youth Award Modules 1, 2 and 3 & FA Mentoring Adults. The knowledge gained from completing the football fitness Diploma has contributed to gaining my further Elite coaching qualifications and has also allowed me the opportunity to network with high end professionals who never want to stop learning. This has allowed me to further develop a great work ethic with a forward-thinking approach towards Football and science with great attention to detail with every session I design and deliver.

Many of the contacts I made on the course are currently working at the very top end of the game in Europe, Africa, South America, and the Middle East. I have gained many lifelong friends and professional acquaintances since attending the ISAFSA Football Fitness Diploma.

This year I have been invited to become a board member of the ISAFSA. In all my 17 years of coaching football this is one of my biggest and proudest achievements. Going forward we aim to develop and mentor our football scientists and Football coaches of the future and build a platform for those hoping to develop the game from grassroots right through to the elite game.

I currently reside in Saudi Arabia working as a Senior Coach with Arsenal Soccer Schools KSA.

Through the knowledge gained from the football fitness Diploma I have been able to contribute to our current program which has attracted interest from local Professional Clubs in the Saudi Pro league such as Qadisiya FC & Etifaq FC. I have had many other Job opportunities arise in England the Middle East and the Far East. Currently I am committed to growing the Arsenal Soccer Schools in Saudi Arabia and developing grassroots football in the region. I still maintain the ambition to achieve and work at the very top end of the game and I believe that working closely with the ISAFSA will aid me in achieving success for others as well as myself in the future especially with the upcoming World Cup in 2022.





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