

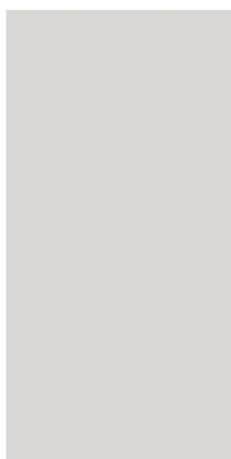
# Bulletin

Journal of Sport Science and Physical Education

No 66, May 2014

**Feature:**

**Perspectives on Front Line Care for Mild Traumatic Brain Injury in Sport (MTBI): Position Statements, Policies and Guidelines**



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# PUBLISHER'S STATEMENT

**No. 66, May 2014, ISSN 1728-5909**

The Journal of the International Council of Sport Science and Physical Education (ICSSPE) is published twice a year. Its goal is to provide a forum for ICSSPE members and other contributors to share news and experiences, raise issues for discussion, develop international and external links and promote events. The featured articles and other contents are monitored by the ICSSPE Executive Office and the Editorial Board, with the aim of allowing for free and balanced dissemination of information consistent with ICSSPE's aims and objectives. The views expressed within this publication are not necessarily those held by ICSSPE unless otherwise stated.

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# FOREWORD

## Editorial

*Ben Weinberg*

Welcome to issue No. 66 of the ICSSPE Bulletin, which provides a Special Feature called “Perspectives on Front Line Care for Mild Traumatic Brain Injury in Sport (MTBI)”. The section contains a selected collection of position statements, policies and guidelines as well as articles relating to the pressing need of how to prevent, treat and deal with brain injuries and concussions in sport. On behalf of ICSSPE I would like to give thanks to those organisations that have provided permission to reprint and share their contributions on the topic. The Special Feature was designed, compiled and reviewed by Carl Cramer (Barry University, USA), who has taught, researched and served in the field of athletic training for more than thirty-five year and who has served the profession in many leadership capacities involving accreditation of entry-level athletic training education. I would like to thank him for his great commitment and dedication throughout the editing process.

The Current Issue section consists of six articles. The first contribution is by Gladys Guerrero and Rosa López de D'Amico and outlines aspects of physical activity for health and housewives in the context of women's participation and development in society. The article by Nagoor Meera Abdullah, Vincent Parnabas and Mohammad Nizam Mohamad Shapie deals with physical activity and cerebral palsy based on reviews of a number of studies on individuals with cerebral palsy and the relationship between the condition and muscle strength and exercise. In his article WADA's Director of Education and Program Development, Rob Koehler, addresses the importance of education and the delivery of values-based messages in the prevention of doping in sport. Following Mu Liming's brief portray of the *Presidential Youth Fitness Program* launched by the U.S. President's Council on Fitness, Sports and Nutrition, Lauren Hillard provides a review of Gianna Angelopoulos' book *My Greek Drama: Life, Love, and One Woman's Olympic Effort to Bring Glory to Her Country*. As usual the section closes with a compilation of recent ICSSPE news.

Finally, I would like to remind you that contributions for the Bulletin are always welcome, whether you would like to submit an article, a review, or report on a meeting or conference, introduce a new research project or university programme. Feedback on the format, or any aspect of the Bulletin, is always appreciated.

Please email me at [bweinberg@icsspe.org](mailto:bweinberg@icsspe.org).



**Ben Weinberg**  
Manager (Services)

## President's Message

*Margaret Talbot*



The focal topic of this issue of the Bulletin, as indicated by its Editor Dr Carl Cramer in his introduction, is the management of and protocols for treating injuries related to concussion. He has assembled a rich collection of examples of the responses of academics and researchers, and of the international and national federations which govern sports where these are most likely to occur.

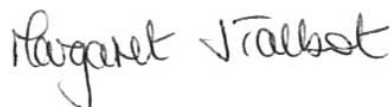
It is indeed positive that so many federations are taking preventive action; and that the Zurich Consensus Statement, which is informed by distinguished scientists and medics, has been adopted by the IOC and other international NGOs. Yet it is also worthy of comment that it has taken so long for these measures to be accepted and adopted – especially where children and young people are at risk of possibly life-threatening injury. The strength and power of sporting cultures sometimes actually prejudice the safety and well-being of their players and participants, by preventing critique and appropriate action being taken. Independent, informed observation and scientific evidence have played a crucial role in challenging some sporting cultures based on mistaken notions of masculinity or toughness, which have frequently supported the continuation of damaging and dangerous sporting practices.

It is sobering to observe what Jay Coakley terms “overconformity to the sport ethic”, i.e. encouragement by coaches (and sometimes parents) for young players to continue, even after they clearly have sustained concussion. In such cases, it is vital that criticism and challenge are public and vocal. Ensuring that sensible protocols for dealing with all head traumata are followed should be an integral element in safeguarding the well-being of all players, but especially young participants. It is therefore good to see that the issue is being taken very seriously for instance by U.S. President Obama, who is calling a conference to address it. However, it appears that there remains much work to be done before this is mainstreamed into all children's and youth sport programmes. Teachers and coaches need to be at the forefront of this process.

ICSSPE has benefited from a wide range of collaborative activities during the last few years, which have provided impetus to ongoing work in health promotion and advocacy and in the promotion of positive sporting values. We are looking forward to the development of a shared values resource, to be commissioned by a consortium led by WADA and including ICSSPE, IOC, IPC, UNESCO and International Fair Play. During recent weeks, ICSSPE's support has been sought by member and partner organisations for

bids in the EU ERASMUS + programme. And ICSSPE and its members have made significant contributions to the development of UNESCO's Guidelines for Quality Physical Education, which it is hoped will be published soon.

ICSSPE's annual statutory meetings will take place in Helsinki in June 2014, followed by the 6th International Conference on Women and Sport, for which ICSSPE is a strategic partner. We look forward to stimulating debate and discussion!

A handwritten signature in black ink, reading "Margaret Talbot". The script is cursive and fluid, with the first name "Margaret" and the last name "Talbot" clearly distinguishable.

**Professor Margaret Talbot**, PhD OBE FRSA

President

## Welcome New Members

Upon ratification at the 74<sup>th</sup> Executive Board Meeting ICSSPE welcomes the following members to its network:

A174-1

Centro Sportivo Educativo Nazionale (CSEN)

Italy

B121-4

International Council Of Sqay

India

C090-2

Brazilian Physical Education Council, Conselho Federal de Educacao Fisica

Brazil

D057-32

Institute for Scholastic Sport Science & Medicine (ISSSM)

USA

D090-10

Federal University of Juiz de Fora Minas Gerais, Faculty of Physical Education

Brazil

D142-1

Indonesia School Sport Society

Indonesia



## FEATURE:

### **Perspectives on Front Line Care for Mild Traumatic Brain Injury in Sport (MTBI): Position Statements, Policies and Guidelines**

## Introduction

*Carl R. Cramer*

The purpose of this edition of the ICSSPE Bulletin is to promulgate awareness of injury potential among all people who are involved in the management of sport: from seniors to youngsters, from elite and gifted to the most challenged participants. Of particular interest are injuries to the brain as a result of participation in sport. A concussion is a type of traumatic brain injury caused by a bump, blow or jolt to the head that can alter the way in which the brain works. Concussions can occur from blows to the body that cause the head to move rapidly to and fro. These injury types have taken front stage in many venues around the world recently. Because the brain is central to the growth and development of the body, this Bulletin is a selected compilation of position statements, policies and guidelines on sport concussion and mild traumatic brain injury in sport from several parts of the world. Children continue to suffer significant disability evident acutely or later in life as adults and sometimes even die on the playing venues of the world due to the strong desire to compete. Coupled with the inability for many in leadership to address the imminent danger posed to those who would continue to play after significant brain trauma, this bulletin is offered to all who come together to say, "No more!"

This edition of the ICSSPE Bulletin is arranged based on the types of submissions available from the ever-growing chorus of organizations that are in the conversation. The sport concussion discussion continues with several facets being considered by members of the sports medical community from each nation and sport federation weighing in on what defines a sport concussion. The submissions reflect selected practices internationally with respect to several essential elements when considering how to care for a participant who has suffered a sport concussion: prevention through review of rules and equipment technologies; baseline screening tools used pre-concussion to allow for a post-concussion comparison; recognition and management guidelines including tools used in assessment for symptomatology, balance and neurocognitive status; the need for implementation of an individualized cognitive rest strategy paired with a return to learn as well as a graduated return to participation in sport plan; a new set of guidelines in 2014 specifically for children who suffer a sport concussion; and a perspective from the International Concussion in Sport Group on the Zurich Consensus Statement. A common theme has emerged throughout all documents that an injured participant should never return to participation in the same event and must be cleared by a health care professional on symptomatology, balance and neurocognitive performance before returning to participation. There is an accepted time of expected recovery of 7-10 days for most sport

concussions; however, there are individual cases, some involving death, that are demonstrating deficits in assessment findings at 4-6 weeks. Each individual case must be provided for on its own pattern of recovery.

The full text reprint submissions of position statements and articles provided with permission are from: The American Academy of Neurology is working to set the standard for defining concussion and evidence-based care for sport concussion. They are also recommending that USA high school parents and athletes sign a knowledge of sport concussion document; the American Chiropractic Board of Sport Physicians emphasizes a need for physician follow-up for all cases of sport concussion and follows the Zurich Consensus Statement in their rationale for sport concussion management; the Australian Football League Medical Officers Association has a statement to reduce pressure from non-medical personnel regarding return to play that states: "Trainers should not be swayed by the opinions of players, coaching staff or others suggesting a premature return to play. Conversely, coaches must, in accordance with the AFL Coaches Code of Conduct, not put undue pressure on trainers or players to make such decisions;" the International Olympic Committee has adopted the Zurich Consensus Statement in its policy guidelines for sport concussion management stressing in particular the need for a baseline assessment in the pre-participation physical; National Federation of State High School Associations (USA) suggested guidelines for sport concussion management are based on the position statements from the American Medical Society for Sports Medicine, the Zurich Consensus Statement, and the American Academy of Pediatrics; the National Football League (USA) lists the following as reflecting a need to cease participation: loss of consciousness; confusion as evidenced by disorientation to person, time or place, inability to respond appropriately to questions; or inability to remember assignments or plays, amnesia as evidenced by a gap in memory for events occurring just prior to the injury, inability to learn and retain new information; or a gap in memory for events that occurred after the injury, abnormal neurological examination, such as abnormal pupillary response, persistent dizziness or vertigo, or abnormal balance on sideline testing, new and persistent headache, particularly if accompanied by photosensitivity, nausea, vomiting or dizziness, and any other persistent signs or symptoms of concussion. , the UK Faculty of Sport and Exercise Medicine includes seven key messages for the management of concussion in sport at all levels: the critical importance of recognising and removing the athlete suspected of concussion from play for a structured assessment by a medical practitioner, that athletes in whom concussion is confirmed should not return to play the same day, the principle of monitoring a concussed player's progress through a graduated return to play protocol, only once the player is symptom free, that medical clearance from a licensed healthcare professional is sought before a return to play, the shortest return to play currently recommended for an adult athlete is six days. This can only occur if the athlete is asymptomatic the day after the concussive event and progresses uneventfully through the graduated return to play, a Consultant in Sport and Exercise Medicine with expertise in concussion management is uniquely placed to co-ordinate the care of the athlete who has suffered a concussion, and a more conservative approach to the management of the younger age group player should be adopted by sporting organizations; and Sports Medicine Concussion Management in 2014 : What must we learn from the Zurich consensus statement? by P. McCrory, courtesy of the Aspetar Sports Medicine Journal, in particular calls to attention sport concussion in children by stating: that the diagnosis of concussion, monitoring concussive symptoms and physical and cognitive assessment must be modified in children because of physical, cognitive and language development. As such, a 'childSCAT3' has been developed for use in children ages 5 to 12 years. For children ages 13 to 17 years, the SCAT3 should be used. It will be noted that the childSCAT3 includes both a child-report and parent-report symptom scale. It is very important to include the parent/teacher/coach/guardian in assessing the child with concussion.

The weblinks to articles, position statements and policies provided with permission are from: The American Academy of Pediatrics (USA) which stresses in its findings that cognitive and physical rest for children with sport concussion is the mainstay of management after diagnosis, and neuropsychological testing is a helpful tool in the management of concussion, the American Medical Society for Sports Medicine (USA) has indicated in their comprehensive position statement that it is critical that athletes are forthcoming regarding their symptoms as this is often the only detectable indication of concussion; the National Athletic Trainers' Association (USA) with a March 2014 update which includes a comprehensive reference list and stresses the development of a written plan of action: the plan should include a baseline evaluation of athletes, including a neurologic history with symptoms and physical examination and objective measures of neurocognitive performance and motor control; and the National Association of School Nurses (USA) policy on concussions state that management of a suspected concussion includes observation for symptoms, assessment for symptoms, notification to parents/guardians if patient is a minor, referral to a health care professional if symptoms are noted, and if no symptoms are present - instructions to parents or school staff for continued observation. As the school health professional, the school nurse provides advocacy for the prevention of concussions by advocating for safe environments; education of students, parents and staff on concussions; and tracking students with concussions. The NASN statement is consistent with the policies of the Centers for Disease Control and Prevention.

Selected public access weblinks available on the World Wide Web are from: The American Academy of Family Physicians that has formed a Team Physician Consensus Statement that goes beyond the essential need for evidence-based practice on the knowledge and skill to diagnose and treat the sport concussed person, but includes the desired elements of: during the pre-participation evaluation, obtaining a concussion history, discussing the enforcement of rules to limit concussion with coaching staff and officials before practice and competition, discussing with players and coaches techniques which may increase the risk of concussion, supporting the use of mouth guards to decrease the risk of dental and facial injury, although the protection they provide to concussion risk is unclear, educating athletes, parents, and coaches on the importance of reporting symptoms of concussion to limit complications, and educating athletes, parents, and coaches regarding the escalation of violence in sports; the Amateur Athletic Union includes the recommendations of: where there is reasonable cause to believe that a concussion may have occurred, such participant shall not be allowed to continue his/her participation in an AAU authorized event/activity without a medical release to resume such participation. The AAU recommends all of its coaches, and other non-athlete members working with youth athletes avail themselves to the Center for Disease Control's (CDC) Head's Up program; the American Orthopedic Society for Sports Medicine has partnered on the joint Team Physician Consensus Statement with the American Medical Society for Sports Medicine included earlier in the Bulletin; the Centers for Disease Control and Prevention in Atlanta, Georgia, USA has become the public safety clearing house on sport concussion with many resources for parents, coaches and the public domain to include an on-line training course on sport concussion recognition; the European Karate Organization has developed a handbook for team physicians with the level of concussion define as I, II or III with the fighter removed from the match in level I; the International Ice Hockey Federation reports that approximately one third of youth in developed countries will experience a concussion before the age of 19. The majority of concussions will occur during sport and recreation., Federation Internationale de Football Association-Medical reported from its several conferences sponsored on sport concussion that the experts debated the tools used to monitor concussion and how these tools should be applied in deciding when to move a player back into play, regardless of whether the player is elite or non-elite. The risk of an extremely rare, but potentially fatal collapse of the brain's circulation forces team physicians to be very careful about returning

a player to the same match, or any competition before full recovery; and the International Rugby Board whose guidelines include operational policies that all players with a diagnosed concussion must be removed from the field of play and not return to play or train on the same day, all players with a suspected concussion where no appropriately trained personnel are present must be assumed to have a diagnosed concussion and must be removed from the field of play and not return to play or train on the same day, players with a suspected concussion at the elite level must be removed from play and assessed by an experienced doctor assisted by the Pitch-side Suspected Concussion Assessment (PSCA). This editor is most grateful to the support given by Dr. Frank Conidi, a member of the American Academy of Neurology who has been integral in AAN position statements, policy development, consensus statements and sport brain trauma research and who has most kindly offered the following commentary to begin this edition of the ICSSPE Bulletin.

## Contact

Carl R. Cramer Ed.D., ATC, LAT

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## Commentary

*Frank Conidi*

Sports related concussion is a form of mild traumatic brain injury which is now arguably the most widely publicised neurological disorder. Over the past few years numerous guidelines, position statements and consensus statements have been released. Each has attempted to define concussion (however at present there is no consensus definition), describe the incidence and prevalence, define which tests are best for detection, outline risk factors for sustaining both a single concussion and multiple concussions, and determine best medical practices with respect to treatment and when it is safe to return an athlete to play. The reader may be surprised and even shocked to find out that there is little to no evidenced based medicine, i.e. science to support any of the recommendations that we as concussion experts make to the general public. Why? Up until about 2007, when my former colleague Ann McKee released her landmark study on Chronic Traumatic Encephalopathy (CTE) in retired National Football League (NFL) players and other high impact sports participants, there was very little research pertaining to concussion in sport, and even less in the way of funding. However, over the past couple of years in the United States, the NFL alone has provided over US\$40 million (US\$10 million pending from the NFL concussion lawsuit) for sports concussion research. Congress is also looking into increased funding for the National Institute of Health (NIH) and various private organisations such as The Seeing Stars Foundation are also raising money for research and education. Where will this money go? US\$12 million will go to funding research on CTE with other funds allocated for research to identify biomarkers and neuroimaging studies to detect when a concussion occurs and when it resolves. Other studies include looking at eye movement abnormalities as a means to diagnose and mobile apps to track when an athlete has been returned to play. Manufacturers are also looking at ways to improve helmets despite a recent study by this author that helmets do little to protect against concussion. We are also seeing sensor technology added to helmets (i.e. HITS) such as the Rebook “Check Light” which can directly measure the force an athlete sustains when they are hit, but is unable to directly detect the rotational and angular forces needed to sustain concussion. Such technology, if used with caution, may provide a useful tool for coaches and athletic trainers to aid in detecting when an athlete may have sustained a concussion. A recently published study in JAMA Neurology, by Shahim, et al looked at three biomarkers: total tau (a measure of axonal injury); SB100 (a measure of astrocyte and glial injury); and neuron specific enolase in professional Swedish ice hockey players. Blood levels of the three biomarkers were obtained at baseline and then measured at 1, 12, 36 and 48 hours as well as 144 hours after the injury or the date on which the player returned to unrestricted competition. The researchers found increased levels of total tau and SB100 immediately after concussion. In addition, levels of both biomarkers declined as the athletes recovered from concussion with total tau achieving statistical significance (especially early in the recovery process) when compared to baseline levels. Furthermore, the concentration of T-tau 1 hour after concussion correlated with the number of days it took for concussion symptoms to resolve. Similar to T-tau, there was a significant correlation between the concentration of S-100B and the time to resolution of concussion symptoms. Neuron specific enolase did not obtain statistical significance in any outcome measures. From a practicality standpoint it is going to be difficult to obtain blood samples

from athletes of any level at one hour, especially at the high school level and below. It does, however, provide a firm basis for future research especially if a saliva or finger stick assay can be developed.

Future research should continue to focus on developing evidence based guidelines for the treatment of concussion symptomatology especially headache. There will also likely be a greater emphasis on prevention including developing and validating; isometric and isokinetic exercises for the cervical spine, sport specific tackling and hitting techniques and defining what is the correct amount of time an athlete should spend at practice to prevent and decrease the risk of concussion. Finally, discovering what many have called the “holy grail” of concussion i.e. objective measures of when an athlete has sustained a concussion and when they are safe to return to play will continue to remain the major objective. With longitudinal studies using Diffusion Tensor MRI (DTI-MRI) and biomarkers being the most likely and the most attainable measures.

Until there is a true objective measure, a detailed neurological history and comprehensive concussion specific neurological exam remain the best way to assess an athlete who has sustained a concussion and eventually safely return them to play.

## **Contact**

Frank X. Conidi MD, DO, MS  
Assistant Clinical Professor of Neurology, Florida State University  
Owner, Florida Center for Headache and Neurology  
Team Neurologist, Florida Panthers

## Position Statement: Sports Concussion

*American Academy of Neurology*

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### Background

The American Academy of Neurology (AAN)— an association of more than 25,000 neurologists and neuroscience professionals dedicated to providing the best possible care for patients with neurological disorders— advocates for policy measures that promote high quality, safe care of individuals participating in contact sports. Neurologists specialize in treating disorders of the brain and nervous system. Some AAN members have particular interest and experience caring for athletes and are qualified to develop and disseminate guidelines for managing athletes with sports-related concussion.

### Description of Issue OF

Concussion, a form of mild traumatic brain injury (TBI), is a common consequence of trauma to the head in contact sports. An estimated 1.6 to 3.8 million sports-related concussions occur in the United States each year<sup>1</sup>. While the majority of concussions are self-limited injuries, catastrophic results can occur and the long-term effects of multiple concussions are unknown. A history of prior concussion significantly increases risk for recurrent concussions.

The effect of concussion on developing brains is of particular concern. Children with concussion, particularly multiple concussions, are at high risk for developing headaches and suffering from impaired memory, cognitive function, attention, or other behavioral changes. Unfortunately, during the last decade, emergency department visits for sports- and recreation-related TBIs, including concussions, among children and adolescents increased by 60 percent<sup>2</sup>.

The AAN strongly encourages state and local policymakers to implement legislation and regulations to minimize the occurrence of sports-related concussion.

### Rationale

#### **Model Legislation**

The AAN supports model legislation passed in the state of Washington in 2009, known as the “Zachary Lystedt Law,” and recommends policymakers include the following elements in all legislation and regulations pertaining to concussion management:

- Education efforts should be maximized to improve awareness of concussion and possible adverse consequences of concussion by athletes, parents, and coaches. The AAN supports strong educational resources such as the Centers for Disease Control and Prevention's Heads Up: Concussion in Youth Sports online training course for coaches and parents<sup>3</sup>.
- Any athlete who is suspected to have suffered a concussion, regardless of severity, is to be removed immediately from participation in a game or practice.
- A licensed health care professional, such as a neurologist, whose scope of practice includes being properly trained in the evaluation and management of concussion, must clear the youth athlete before he or she can return to play. This includes sports recognized by high school athletic associations as well as youth and recreational leagues run by other entities.

### **Further Recommendations**

- High schools should consider having parents and athletes sign a concussion and head injury information sheet each year before an athlete can practice and compete in his or her sport acknowledging the risks of concussion.
- Lawmakers and state health departments should implement sports concussion registries.
- Registries help physicians and researchers learn more about the impact of concussions, including how it affects student athlete performance in the classroom.
- High schools and athletic associations should implement a tool such as the Standardized Assessment of Concussion (SAC), which is designed for use by non-physicians on the sidelines of an athletic event. According to the AAN's guideline on the evaluation and management and concussion in sports, it is likely that the SAC will accurately identify the presence of concussion in the early post-injury period<sup>4</sup>.
- Licensed health care professionals who are on a volunteer basis and not receiving pay for conducting a concussion evaluation on the field of play and who in good faith authorize a student athlete to return to play from the sidelines should not be held liable for civil damages resulting from an act or omission in the evaluation rendering, except for acts that constitute gross negligence or willful misconduct.

### **Conclusion**

Children are more likely to sustain concussions and require longer time to recover from them. State and local policymakers should implement legislation and regulations to minimize the occurrence of sports-related concussion.

### **Position Statement History**

Originally drafted in October 2010 (AAN Policy 2010-36) and updated in March 2013. Approved by the AAN's Government Relations Committee March 2013. Approved by the AAN Board of Directors March 2013. (AAN Policy 2013-8).



## References:

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"Heads Up: Concussion in Youth Sports," Centers for Disease Control and Prevention, accessed March 7, 2013, <http://www.cdc.gov/concussion/HeadsUp/youth.html>.

Giza CC, Kutcher JS, Ashwal S, et al. Evidence-based guideline update: Evaluation and management of concussion in sports. Report of the Guideline Development Subcommittee of the American Academy of Neurology. *Neurology* Epub 2013 March 18.

## Contact

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## Position Statement on Concussion in Athletics

*American Chiropractic Board of Sports Physicians*

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The management of concussion in athletics is an area of sports medicine that is clearly in continued evolution. Several methods of evaluating and assessing concussion that were once considered standards of care are now defunct. The importance of arriving at correct clinical decisions regarding the assessment, management and return to play criteria of individuals who have sustained concussion remains one of the greatest challenges to sports medicine providers.

**Regarding the qualifications of Doctors of Chiropractic and their involvement in concussion management, it is the position of the ACBSP that:**

1. Doctors of Chiropractic with current ACBSP post graduate certification(s) in sport (DACBSP and CCSP) are qualified to manage the concussed individual in any patient population.
2. Doctors of Chiropractic may evaluate, diagnosis and manage the concussed individual. The prerequisite management skills for a concussed athlete can be supported by additional education such as the ACBSP concussion registry.
3. All health care providers involved in the management of concussed individuals have an obligation to maintain current knowledge regarding best practices in concussion management. The ACBSP does not endorse any specific methodology of concussion management because the methods of assessment and management of concussion are in transition.

**Regarding current best practices in concussion management it is the ACBSP position that:**

1. Concussion may be caused by a direct blow to the head or elsewhere on the body.
2. Loss of consciousness is a key but NOT a required factor in the diagnosis of concussion. An individual may be concussed without a loss of consciousness.
3. Individuals with concussion may present with wide range of signs and symptoms such as physical signs of neurologic impairment, or/and symptoms of impaired brain function which may include abnormal behavior.
4. An athlete suspected of concussion must be removed from play and immediately assessed.
5. The concussed individual must not be allowed to return to play the same day they were concussed.
6. Any individual with signs or symptoms of concussion at rest or with exertion should not be allowed to participate in sport until the signs and symptoms have resolved.

7. Consultation with a qualified health care provider, including a DACBSP or CCSP, is essential after suspected concussion
8. Individuals with concussion should be directly observed, receive serial examinations and not be left alone after the injury until their constellation of symptoms are static.
9. Any increase of symptoms (especially increasing headache, decreasing neurologic function, presence of any focal neurologic deficit, altered vital signs, or repeated vomiting) in a concussed individual requires urgent evaluation of the individual in a hospital setting.
10. A graded return-to-play protocol must be followed prior to resumption of full sporting activity.
11. Clearance by a qualified healthcare provider must be sought prior to the athlete returning-to-play.
12. An athlete must be symptom-free at rest and with exercise prior to return-to-play. A recommended current reference for consensus based approach to concussion management is the Consensus Statement on Concussion in Sport: *The 3rd International Conference on Concussion in Sport Held in Zurich, November 2008*. Agreement exists pertaining to principal messages conveyed within this document, the authors acknowledge that the science of concussion is evolving and, therefore, management and return-to-play (RTP) decisions remain in the realm of clinical judgment on an individualized basis.
13. Sports Medicine providers are encouraged to copy and distribute freely the following resources: Zurich Consensus document - includes the Sports Concussion Assessment Tool (SCAT2)

## Contact

American Chiropractic Board of Sports Physicians (ACBSP)  
PO Box 62328,  
Colorado Springs, CO 80962  
[info@acbsp.com](mailto:info@acbsp.com)  
[www.acbsp.com](http://www.acbsp.com)

## Guidelines for Community Football

*Australian Football League Medical Officers Association*

*Reproduced with permission*

Following the introduction of the new concussion management guidelines for the 2013 AFL season, the AFL Medical Officers Association has produced guidelines for community football.

The guidelines are for trainers, first-aid providers, coaches, umpires, club officials and parents and should be understood and followed by all parties for the benefit and welfare of the players.

Download concussion management resources for community clubs, for medical practitioners at:

[www.aflcommunityclub.com.au/index.php?id=66](http://www.aflcommunityclub.com.au/index.php?id=66)

### **The Guidelines**

In the best practice management of concussion in football, the critical element is the welfare of the player in the short and long term. These guidelines should be adhered to at all times.

Decisions regarding return to play after a concussive injury (a disturbance of brain function) should only be made by a medical officer with experience in concussive injuries.

Generally, initial decisions in this area in community football will be made by the head trainer, unless the club has a medical doctor in attendance.

Trainers should not be swayed by the opinions of players, coaching staff or others suggesting a premature return to play. Conversely, coaches must, in accordance with the AFL Coaches Code of Conduct, not put undue pressure on trainers or players to make such decisions.

A major responsibility of coaches is their duty of care towards their players and the players' safety. This duty is highlighted when players receive a knock to the head and suffer a concussive injury.

### **The key components of management of concussion include:**

- Any player who has suffered a concussion or is suspected of having a concussion must be medically assessed as soon as possible after the injury and must not be allowed to return to play in the same game or train in the same practice session.
- There should be a trained first aider (trainer with current first aid qualifications) at every game and the principles of first aid, including management of the cervical spine, should be used when dealing with any player who is unconscious or injured.
- A concussed player must not be allowed to return to school or return to training or playing before having a formal medical clearance.

**For children (players aged 5-17).** This is a new aspect of the 2013 guidelines.

- The child is not to return to play or sport until they have successfully returned to school/learning, without worsening of symptoms. Symptom assessment in the child often requires the addition of parent and/or teacher input.
- It is reasonable for a child to miss a day or two of school after concussion, but extended absence is uncommon.

It is critical that the basic principles of return to play decisions are followed to ensure that a concussed player is fully recovered before being allowed to do so.

All players with concussion or suspected concussion need an urgent medical assessment (with a registered medical doctor). This assessment can be provided by a medical doctor present at the venue, local general practice or hospital emergency department.

A player with suspected concussion must be withdrawn from playing or training until fully evaluated by a medical practitioner and cleared to play.

**A concussed player must not be allowed to return to school, or return to training or playing before having a medical clearance.**

It is important that concussion is managed correctly and that players do not return to play or training until they are fully recovered.

These concussion guidelines have been published by the AFL as a Position Statement on the Management of Concussion in Australian Football. It is based on guidelines developed by the AFL Medical Officers' Association which incorporate research that has been funded by the AFL Research Board and which was undertaken by Dr. Michael Makdissi, Assoc. Prof. Paul McCrory and Assoc. Prof. Gavin Davis.

## Contact

The Australian Football League  
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# **Consensus Statement on Periodic Health Evaluation of Elite Athletes (March 2009)**

*International Olympic Committee*

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## **Concussion in Sport**

### **Introduction**

Concussion in sport is defined as a complex pathophysiological process affecting the brain, induced by traumatic biomechanical forces (Aubry et al 2002). Estimates in the United States range from 1.6 to 3.8 million concussions per year related to sport and recreation (Langois 2006 and Centers for Disease Control and Prevention 2007). There is evidence that concussions are particularly prevalent in collision sport (Browne 2000, Guskiewicz 2006).

### **Evidence Base**

The IOC and several members of the present consensus group participated in the recent Zurich Consensus Statement on Concussion in Sport (McCrory et al 2009) and endorse its concepts and principles. A structured consensus-development conference format was used, modelled after the protocol of the National Institutes of Health, including development of evidence-based recommendations. The specific evidence and rationale are provided in detail in the manuscript by McCrory et al.

### **Proposal for Content of the PHE**

It is recognized that a structured concussion history is an important component of the PHE, and should include specific questions regarding:

- previous symptoms of a concussion; not just the perceived number of past concussions; appreciating the fact that many athletes will not recognize all the concussions they may have suffered in the past
- all previous head, orofacial or cervical spine injuries
- whether repeated concussions produce disproportionate severity of symptoms given the amount of impact; alerting the clinician to a progressively increasing vulnerability to injury
- use of protective equipment such as helmets, facial protection and mouth guards; including their age and state of repair

- the ability of the athlete to adopt protective behavior such as avoiding overly aggressive or high risk situations

The purpose in obtaining such a history may identify athletes that fit into a high risk category and provides an opportunity for the healthcare provider to educate the athlete in regard to the significance of concussive injury.

### **Possible future directions for concussion in sport**

The Concussion in Sport Group (McCrory et al 2009) had extensive discussion and general agreement on the principle of doing baseline assessment (neuropsychological, balance, etc) during the PHE in high risk sports. The intent is to provide a comparison point for possible future post injury testing. While a specific recommendation for baseline examination in the PHE was not included in the concussion consensus document, one of the suggested future directions in research was the “clinical assessment where no baseline assessment has been performed” (McCrory et al 2009).

### **Contact**

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1007 Lausanne, Switzerland  
[pressoffice@olympic.org](mailto:pressoffice@olympic.org)  
[www.olympic.org](http://www.olympic.org)

## **Suggested Guidelines for Management of Concussion in Sports**

*National Federation of State High School Associations (Sports Medicine Advisory Committee)*

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### **Introduction**

A concussion is a type of traumatic brain injury that interferes with normal function of the brain. It occurs when the brain is rocked back and forth or twisted inside the skull as a result of a blow to the head or body. What may appear to be only a mild jolt or blow to the head or body can result in a concussion.

The understanding of sports-related concussion by medical professionals continues to evolve. We now know that young athletes are particularly vulnerable to the effects of a concussion. Once considered little more than a “ding” on the head, it is now understood that a concussion has the potential to result in a variety of short- or long-term changes in brain function or, in rare cases, even death.

### **What is a Concussion?**

You’ve probably heard the terms “ding” and “bell-ringer.” These terms were previously used to refer to minor head injuries and thought to be a normal part of collision sports. Research has now shown us that there is no such thing as a minor brain injury. Any suspected concussion must be taken seriously. The athlete does not have to be hit directly in the head to injure the brain. Any force that is transmitted to the head in any matter may cause the brain to literally bounce around or twist within the skull, potentially resulting in a concussion.

It used to be believed that a player had to lose consciousness or be “knocked-out” to have a concussion. This is not true, as the vast majority of concussions do not involve a loss of consciousness. In fact, less than 5% of players actually lose consciousness with a concussion.

What exactly happens to the brain during a concussion is not entirely understood. It appears to be a very complex process affecting both the structure and function of the brain. The sudden movement of the brain causes stretching and tearing of brain cells, damaging the cells and creating chemical changes in the brain. Once this injury occurs, the brain is vulnerable to further injury and very sensitive to any increased stress until it fully recovers.

Common sports injuries such as torn ligaments and broken bones are structural injuries that can be detected during an examination, or seen on x-rays or MRI. A concussion, however, is primarily an injury that interferes with how the brain works. While there is damage to brain cells, the damage is at a microscopic



level and cannot be seen on MRI or CT scans. Therefore, the brain looks normal on these tests, even though it has been seriously injured.

## Recognition and Management

If an athlete exhibits any signs, symptoms, or behaviors that make you suspicious that he or she may have had a concussion, that athlete must be removed from all physical activity, including sports and recreation. Continuing to participate in physical activity after a concussion can lead to worsening concussion symptoms, increased risk for further injury, and even death.

Parents and coaches are not expected to be able to “diagnose” a concussion. That is the role of an appropriate health-care professional. However, everyone involved in athletics must be aware of the signs, symptoms and behaviors associated with a concussion. If you suspect that an athlete may have a concussion, then he or she must be immediately removed from all physical activity.

### Signs Observed by Coaching Staff

- Appears dazed or stunned
- Is confused about assignment or position
- Forgets an instruction
- Is unsure of game, score or opponent
- Moves clumsily
- Answers questions slowly
- Loses consciousness (even briefly)
- Shows mood, behavior or personality changes
- Can’t recall events prior to hit or fall
- Can’t recall events after hit or fall

### Symptoms Reported by Athlete

- Headaches or “pressure” in head
- Nausea or vomiting
- Balance problems or dizziness
- Double or blurry vision
- Sensitivity to light
- Sensitivity to noise

- Feeling sluggish, hazy, foggy or groggy
- Concentration or memory problems
- Confusion
- Does not “feel right” or is “feeling down”

**When in doubt, sit them out!**

When you suspect that a player has a concussion, follow the “Heads Up” 4-step Action Plan.

1. Remove the athlete from play.
2. Ensure that the athlete is evaluated by an appropriate health-care professional.
3. Inform the athlete’s parents or guardians about the possible concussion and give them information on concussion.
4. Keep the athlete out of play the day of the injury and until an appropriate health-care professional says he or she is symptom-free and gives the okay to return to activity.

The signs, symptoms, and behaviors associated with a concussion are not always apparent immediately after a bump, blow, or jolt to the head or body and may develop over a few hours or longer. An athlete should be closely watched following a suspected concussion and should never be left alone.

Athletes must know that they should never try to “tough out” a suspected concussion. Teammates, parents and coaches should never encourage an athlete to “play through” the symptoms of a concussion. In addition, there should never be an attribution of bravery to athletes who do play despite having concussion signs and/or symptoms. The risks of such behavior must be emphasized to all members of the team, as well as coaches and parents.

If an athlete returns to activity before being fully healed from an initial concussion, the athlete is at greater risk for a repeat concussion. A repeat concussion that occurs before the brain has a chance to recover from the first can slow recovery or increase the chance for long-term problems. In rare cases, a repeat concussion can result in severe swelling and bleeding in the brain that can be fatal.

**What to do in an Emergency**

Although rare, there are some situations where you will need to call 911 and activate the Emergency Medical System (EMS). The following circumstances are medical emergencies:

1. Any time an athlete has a loss of consciousness of any duration. While loss of consciousness is not required for a concussion to occur, it may indicate more serious brain injury.
2. If an athlete exhibits any of the following:
  - decreasing level of consciousness,
  - looks very drowsy or cannot be awakened,

- if there is difficulty getting his or her attention,
- irregularity in breathing,
- severe or worsening headaches,
- persistent vomiting, or
- any seizures.

## Cognitive Rest

A concussion can interfere with school, work, sleep and social interactions. Many athletes who have a concussion will have difficulty in school with short- and long-term memory, concentration and organization. These problems typically last no longer than 2 -3 weeks, but for some these difficulties may last for months. It is best to lessen the student's class load early on after the injury. Most students with concussion recover fully. However, returning to sports and other regular activities too quickly can prolong the recovery.

The first step in recovering from a concussion is rest. Rest is essential to help the brain heal. Students with a concussion need rest from physical and mental activities that require concentration and attention as these activities may worsen symptoms and delay recovery. Exposure to loud noises, bright lights, computers, video games, television and phones (including texting) all may worsen the symptoms of concussion. As the symptoms lessen, increased use of computers, phone, video games, etc., may be allowed, as well as a gradual progression back to full academic work.

## Return to Learn

Following a concussion, many athletes will have difficulty in school. These problems may last from days to months and often involve difficulties with short- and long-term memory, concentration, and organization. In many cases, it is best to lessen the student's class load early on after the injury. This may include staying home from school for a few days, followed by a lightened schedule for a few days, or longer, if necessary. Decreasing the stress on the brain early on after a concussion may lessen symptoms and shorten the recovery time.

## Return to Play

After suffering a concussion, **no athlete should return to play or practice on that same day.** In the past, athletes were allowed to return to play if their symptoms resolved within 15 minutes of the injury. Studies have shown us that the young brain does not recover quickly enough for an athlete to return to activity in such a short time.

**An athlete should never be allowed to resume physical activity following a concussion until he or she is symptom free and given the approval to resume physical activity by an appropriate health-care professional.**

Once an athlete no longer has signs, symptoms, or behaviors of a concussion **and is cleared to return to activity by an appropriate health-care professional**, he or she should proceed in a step-wise fashion to allow the brain to re-adjust to exercise. In most cases, the athlete will progress one step each day. The return to activity program schedule **may** proceed as below, **following medical clearance**:

***Progressive Physical Activity Program (ideally under supervision)***

*Step 1:* Light aerobic exercise- 5 to 10 minutes on an exercise bike or light jog; no weight lifting, resistance training, or any other exercises.

*Step 2:* Moderate aerobic exercise- 15 to 20 minutes of running at moderate intensity in the gym or on the field without a helmet or other equipment.

*Step 3:* Non-contact training drills in full uniform. May begin weight lifting, resistance training and other exercises.

*Step 4:* Full contact practice or training.

*Step 5:* Full game play.

**If symptoms of a concussion reoccur, or if concussion signs and/or behaviors are observed at any time during the return-to-activity program, the athlete must discontinue all activity and be re-evaluated by his or her health-care provider.**

**Suggested Concussion Management**

- 3. No athlete should return to play (RTP) or practice on the same day of a concussion.**
- 4. Any athlete suspected of having a concussion should be evaluated by an appropriate health-care professional that day.**
- 5. Any athlete with a concussion should be medically cleared by an appropriate health-care professional prior to resuming participation in any practice or competition.**
- 6. After medical clearance, RTP should follow a step-wise protocol with provisions for delayed RTP based upon return of any signs or symptoms.**

## References

American Medical Society for Sports Medicine position statement: concussion in sport. Harmon KG, Drezner J, Gammons M, Guskiewicz K, Halstead M, Herring S, Kutcher J, Pana A, Putukian M, Roberts W; American Medical Society for Sports Medicine.

Clin J Sport Med. 2013 Jan;23(1):1-18.

McCrory P, Meeuwisse WH, Aubry M, et al. Consensus statement on concussion in sport: the 4th International Conference on Concussion in Sport held in Zurich, November 2012 J Athl Train. 2013 Jul-Aug;48(4):554-75.

Returning to Learning Following a Concussion. Halstead M, McAvoy K, Devore C, Carl R, Lee M, Logan K and Council on Sports Medicine and Fitness, and Council on School Health. *Pediatrics*, October 2013. American Academy of Pediatrics.

## Additional Resources

Brain 101 – The Concussion Playbook. <http://brain101.orcasinc.com/5000/>

Concussion in Sports- What you need to know.  
<http://www.nfhslearn.com/electiveDetail.aspx?courseID=15000>

Heads Up: Concussion in High School Sports [http://www.cdc.gov/concussion/headsup/high\\_school.html](http://www.cdc.gov/concussion/headsup/high_school.html)

NFHS Sports Medicine Handbook, 4th Ed, 2011.

REAP Concussion Management Program. <http://www.rockymountainhospitalforchildren.com/sports-medicine/concussion-management/reap-guidelines.htm>

Sport Concussion Library  
<http://www.sportconcussionlibrary.com/content/concussions-101-primer-kids-and-parents>

Revised and Approved October 2013

January 2011

April 2009

October 2008

October 2005

## DISCLAIMER – NFHS Position Statements and Guidelines

The NFHS regularly distributes position statements and guidelines to promote public awareness of certain health and safety-related issues. Such information is neither exhaustive nor necessarily applicable to all circumstances or individuals, and is no substitute for consultation with appropriate health-care professionals. Statutes, codes or environmental conditions may be relevant. NFHS position statements or guidelines should be considered in conjunction with other pertinent materials when taking action or planning care. The NFHS reserves the right to rescind or modify any such document at any time.

## Contact

National Federation of State High School Associations  
 USA  
[www.nfhs.org](http://www.nfhs.org)

## NFL Adopts Stricter Statement On Return-To-Play Following Concussions

*National Football League-USA*

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**Commissioner Roger Goodell** notified NFL teams today that a new and expanded statement on return-to-play for a player who sustains a concussion will take effect with games beginning this week.

The stricter 2009 statement on return-to-play was developed by the NFL's medical committee on concussions in conjunction with team doctors, outside medical experts, and the NFL Players Association in order to provide more specificity in making return-to-play decisions. The new guidance supplements the 2007 statement on return-to-play that encouraged team physicians and athletic trainers to continue to take a conservative approach to treating concussions and established that a player should not return to the same game after a concussion if the team medical staff determined that he had lost consciousness.

The 2009 statement advises that a player who suffers a concussion should not return to play or practice on the same day if he shows any signs or symptoms of a concussion that are outlined in the return-to-play statement. It further states:

"Once removed for the duration of a practice or game, the player should not be considered for return-to-football activities until he is fully asymptomatic, both at rest and after exertion, has a normal neurological examination, normal neuropsychological testing, and has been cleared to return by both his team physician(s) and the independent neurological consultant. A critical element of managing concussions is candid reporting by players of their symptoms following an injury. Accordingly, players are to be encouraged to be candid with team medical staffs and fully disclose any signs or symptoms that may be associated with a concussion."

Based on the 2009 statement, a player who suffers a concussion should not return to play or practice on the same day if any of the following symptoms or signs is identified based on the initial medical evaluation of the player:

- Loss of consciousness;
- Confusion as evidenced by disorientation to person, time or place; inability to respond appropriately to questions; or inability to remember assignments or plays;
- Amnesia as evidenced by a gap in memory for events occurring just prior to the injury; inability to learn and retain new information; or a gap in memory for events that occurred after the injury;
- Abnormal neurological examination, such as abnormal pupillary response, persistent dizziness or vertigo, or abnormal balance on sideline testing.

- New and persistent headache, particularly if accompanied by photosensitivity, nausea, vomiting or dizziness;
- Any other persistent signs or symptoms of concussion.

“The evidence demonstrates that team medical staffs have been addressing concussions in an increasingly cautious and conservative way,” Commissioner Goodell said in a memo to the NFL clubs. “This new return-to-play statement reinforces our commitment to advancing player safety. Along with improved equipment, better education, and rules changes designed to reduce impacts to the head, it will make our game safer for the men who play it, and set an important example for players at all levels of play.”

[NFL Players Poster](#)

[NFL Concussion Poster for Young Athletes](#)

[National Football League Sideline Assessment Tool](#)

## Contact

National Football League  
280 Park Avenue  
New York, NY 10017, USA  
[www.nflmedia.com](http://www.nflmedia.com)

## Position Statement

*UK Faculty of Sport and Exercise Medicine*

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### Concussion Management in Sport

The Faculty of Sport and Exercise Medicine (FSEM) calls for the key messages of concussion management to be understood and implemented across the NHS and at all professional and non-professional sporting events for athletes of all ages.

Concussion is recognised to be one of the most challenging of sports injuries to diagnose, assess and manage. There is no single diagnostic test, and assessment of the athlete, in whom concussive injury is suspected, involves a multi-modal assessment of a number of key domains.

#### **The Faculty of Sport and Exercise Medicine UK's 7 key messages for the management of concussion in sport at all levels:**

- The critical importance of recognising and removing the athlete suspected of concussion from play for a structured assessment by a medical practitioner
- That athletes in whom concussion is confirmed should not return to play the same day
- The principle of monitoring a concussed player's progress through a graduated return to play protocol, only once the player is symptom free
- That medical clearance from a licensed healthcare professional is sought before a return to play
- The shortest return to play currently recommended for an adult athlete is six days. This can only occur if the athlete is asymptomatic the day after the concussive event and progresses uneventfully through the graduated return to play
- A Consultant in Sport and Exercise Medicine with expertise in concussion management is uniquely placed to co-ordinate the care of the athlete who has suffered a concussion
- A more conservative approach to the management of the younger age group player should be adopted by sporting organisations

Best practice clinical pathways from injury to return to play for the concussed player outside of the elite sports setting are not easily accessible in the UK. A Consultant in Sport and Exercise is well placed to develop this locally in collaboration with other healthcare professionals.

The Faculty will be working with its Members and Fellows to raise awareness about concussion management and, together with other sporting organisations and national governing bodies, look to align standards of concussion management. The Faculty believes that best practice concussion management should be adopted without restriction.



### Notes to Editors:

- The Faculty of Sport and Exercise Medicine was launched in 2006 and is an intercollegiate faculty of the Royal College of Physicians of London and the Royal College of Surgeons of Edinburgh
- The Faculty has over 550 Members and Fellows, not including medical students
- There are around 70 SEM Doctors registered with the General Medical Council
- The FSEM not only sets standards in SEM but oversees research, training, curriculum and assessment of SEM Doctors, including providing revalidation services
- Sport and Exercise Medicine involves the medical care or injury and illness in sport and exercise. It requires accurate diagnoses, careful clinical examination, experience and knowledge of sport and exercise specific movement patterns. SEM practitioners work in a variety of settings across primary, secondary and tertiary care. The specialty has a large scale application in improving the health of the general public through exercise advice and prescription. Further information about the specialty can be found in the Media & Resources section at [www.fsem.ac.uk](http://www.fsem.ac.uk)

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## Sports Medicine Concussion Management in 2014

### What Must we Learn from the Zurich Consensus Statement?

*Paul McCrory*

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#### **Key Points**

1. The Zurich 2013 consensus statement is the most widely accepted management guideline.
2. A simple assessment tool (e.g. the SCAT3) is the cornerstone of concussion assessment and management. All clinicians who work with concussion should be very familiar with it.
3. Concussion is often best managed in a multidisciplinary approach.
4. In considering the best practice management of concussion, the priority remains the welfare of the player, both in the short- and long-term.

Sport-related concussion is the most topical and contentious area of sports medicine today. No other condition in medicine attracts more column inches of newspaper copy, more electronic media stories and in the USA, is the only medical condition that has its management legislatively mandated. Over the past 15 years, numerous professional bodies have published treatment guidelines on this topic<sup>1-5</sup>.

Commencing in 2001, the International Concussion in Sport Group (CISG) has held four consensus meetings that have established the key management concepts and global research agenda in the field<sup>6</sup>. The most recent conference was held in Zurich in November 2012. The consensus statement produced from this meeting was published in March 2013 and provides the most up-to-date knowledge on concussion in sport<sup>6</sup>. The CISG guidelines have influenced the clinical management of concussion in professional sports worldwide. This paper discusses the current best practice clinical management of concussion in light of the Zurich 2013 guidelines.

### **How is Concussion Defined in 2014?**

Concussion is a subset of traumatic brain injury which is a broad term encompassing a spectrum of injuries to the brain resulting from trauma. Concussion is defined as a syndrome of neurological impairment that results from traumatic biomechanical forces directly or indirectly transmitted to the brain. Although the pathophysiology of concussion remains poorly understood, the current consensus is that it reflects a disturbance of brain function rather than a structural injury.

## How Common is Concussion?

The incidence of concussion varies by sport. The approximate incidence of concussion by common participation sports is shown in Table 1.

<b>Sport</b>	<b>Concussion incidence (per 1000 player hours exposure)</b>
Horse racing (amateur)	95
Horse racing (Jumps)	25
Professional boxing	13
Australian football and rugby	5
Ice hockey	1.5
Football (soccer)	0.4
Football (USA NFL)	0.2

Table 1: Concussion incidence by sport.

## What are the Potential Complications Following Concussion?

Concussion reflects a 'functional' injury of the brain rather than structural damage. Consequently, the changes are usually temporary and recover spontaneously if managed correctly. The recovery process however, is variable from person to person and injury to injury. While most cases of concussion recover uneventfully within 10 to 14 days of injury, complications or adverse outcomes may include:

- Impaired performance and increased injury risk on return to play.
- Acute, progressive diffuse cerebral swelling.
- Prolonged symptoms.
- Depression and other mental health issues.
- Cumulative cognitive deficits (chronic traumatic encephalopathy)

Risk factors for complications or adverse outcomes following concussion remain unclear. While there is a suggestion that genetic factors may play an important role, the current expert consensus is that premature return to play (and the subsequent risk of a second concussive injury before the athlete has fully recovered from the initial concussion) may predispose to poorer outcomes following a concussive injury.

The role of recurrent head trauma in the development of potential long-term complications such as chronic trauma encephalopathy and depression has received considerable press in both the scientific and lay press in recent years. Pathological case reports and cross sectional studies have suggested that retired NFL footballers, who have had recurrent head trauma during their careers, disproportionately suffer from cognitive impairment, depression and other mental health problems<sup>7</sup>. At this time, however very little is known about what type, frequency or amount of trauma is necessary to induce the condition and more importantly why only a small number of athletes are at risk for chronic traumatic encephalopathy. Nevertheless, this concern should reinforce the need for conservative management strategies designed to ensure player safety.

## **Managing Concussion Safely?**

The key components of concussion management include:

7. Confirming the diagnosis (which includes differentiating concussion from other pathologies, in particular structural head injuries).
8. Determining when the player has recovered so that they can be safely returned to competition.

## **Confirming the Diagnosis**

The clinical history is most important in making a diagnosis of concussion. Common symptoms of concussion include headache, nausea, dizziness and balance problems, blurred vision or other visual disturbance, confusion, memory loss and a feeling of slowness or fatigue. While most symptoms appear rapidly following a concussive incident, some symptoms may be delayed or evolve over time. The diagnosis should be suspected in any player that presents with any of these symptoms following trauma to the head or neck. If video footage of the incident is available (from video camera, mobile phone camera etc), reviewing the footage may provide the clinician with important information.

Clinical features that are more specific to a diagnosis of concussion include: loss of consciousness, concussive convulsions, confusion and/or attentional deficit, memory disturbance and balance disturbance. These features however, may not be present in all cases. For example, loss of consciousness is seen in only 10 to 20% of cases of concussion. Questioning close relatives, especially parents or guardians in the case of children and adolescents, is often valuable. Any report that the individual 'does not seem right' or 'is not themselves' following trauma is strongly suggestive of a concussive injury.

The use of a graded symptom checklist is often helpful. The advantages of the symptom checklist are that it covers the range of symptoms commonly observed following concussion and provides a measure of symptom severity. The Zurich 2013 consensus statement includes a comprehensive Sport Concussion Assessment Tool (SCAT3) to facilitate medical assessment of athletes following a concussive injury. For non-medical personnel, the Concussion Recognition Tool provides sideline assessment advice.

Clinical features of concussion typically resolve within 10 to 14 days of injury and the possibility of structural head injury should be kept in mind in any case where symptoms persist beyond this time. Following an

uncomplicated concussion, conventional imaging techniques such as skull X-ray, CT brain scan and MRI are typically normal.

## **Differentiating Concussion from Structural Pathologies**

It is not possible to rule out structural brain injury with certainty during a sideline assessment and for that reason this possibility must be considered in every case. Clinical features that may raise concerns of structural head injury and warrant urgent investigation include:

- The mechanism of injury e.g. high velocity impact.
- Immediate and/or prolonged loss of consciousness.
- Seizures.
- Vomiting (in adults).
- Focal neurological deficit.
- Any deterioration in clinical state such as worsening headache and/or deterioration in conscious state.
- Medical comorbidities e.g. clotting disorders.
- Situations where the neurological exam cannot be adequately performed (e.g. patient intoxicated).
- In a concussed individual with any of these adverse warning signs, urgent neuroimaging is required to exclude intracranial haemorrhage or other pathology.

## **Estimating the Severity of Injury**

Over the years, numerous concussion severity scales have been proposed. International scientific consensus has moved away from anecdotal severity grading systems (e.g. mild, moderate or severe or grade 1, 2 and 3 concussion) towards an objective measure of recovery following the injury using a combination of symptom checklist, physical examination and cognitive assessment.

## **Evaluation in the Emergency Room or Office by Medical Personnel**

An athlete with concussion may be evaluated in the emergency room or doctor's office as a point of first contact following injury or may have been referred from another care provider. In addition to the points outlined above, the key features of this examination should encompass:

- A medical assessment including a comprehensive history and detailed neurological examination including a thorough assessment of mental status, cognitive functioning, gait and balance.
- A determination of the clinical status of the patient, including whether there has been improvement or deterioration since the time of injury. This may involve seeking additional information from video analysis, parents, coaches, teammates and eyewitnesses to the injury.

- A determination of the need for emergent neuroimaging in order to exclude a more severe brain injury involving a structural abnormality.
- Determination of the need for specialist referral.
- Provision of advice re recovery and return to play.

## **Determining when the Player has Recovered so that they Can Safely Return to Competition**

The decision regarding the timing of return to play following a concussive injury is a difficult one to make. Expert consensus guidelines recommend that players should not be allowed to return to competition until they have recovered completely from their concussive injury. Currently, however, there is no single gold standard measure of brain disturbance and recovery following concussion. Instead, clinicians must rely on indirect measures to inform clinical judgment. In practical terms this involves a comprehensive clinical approach, including:

- A period of cognitive and physical rest to facilitate recovery.
- Monitoring for recovery of post-concussion symptoms and signs.
- Neuropsychological testing to estimate recovery of cognitive function.
- Graduated return to activity with monitoring for recurrence of symptoms.
- A final medical clearance before resuming full contact training and/or playing.

## **Period of Cognitive and Physical Rest to Facilitate Recovery**

Early rest is important to allow recovery following a concussive injury. Physical activity, physiological stress (e.g. altitude and flying) and cognitive loads (e.g. school work, videogames and computers) can all worsen symptoms and possibly delay recovery following concussion. Individuals should be advised to rest from these activities in the early stages (initial 24 to 48 hours) after a concussive injury, particularly while symptomatic. Similarly, the use of alcohol, opiate analgesics, anti-inflammatory medication, sedatives or recreational drugs can exacerbate symptoms following head trauma, delay recovery or mask deterioration and should also be avoided. Specific advice should also be given on cessation of activities that place the individual at risk of further injury (e.g. driving, operating heavy machinery).

## **Monitoring for Recovery of Post-Concussion Symptoms and Signs**

Monitoring of post-concussion symptoms and signs can be facilitated by the use of the SCAT3.

## **Use of Neuropsychological Tests to Estimate Recovery of Cognitive Function**

Cognitive deficits associated with concussion are typically subtle and may exist in a number of domains. Common deficits that follow concussion in sport include reduced attention and ability to process

information, slowed reaction times and impaired memory. The use of neuropsychological tests in the management of concussion overcomes the reliance on subjective symptoms, which are known to be poorly recognised and variably reported. These tests allow detection of cognitive deficits, which have been observed to outlast symptoms in many cases of concussion. There are a number of levels of complexity of cognitive testing including formal neuropsychological testing, screening computerised cognitive test batteries and basic paper-and-pencil evaluation (i.e. SCAT3). Overall, it is important to remember that neuropsychological testing is only one component of assessment and therefore should not be the sole basis of management decisions.

## Graduated Return to Activity

Following a concussive injury, players should be returned to play in a graduated fashion (Table 2) once clinical features have resolved and cognitive function returned to 'normal'. When considering return to play, the athlete should be off all medications at the time of commencement of the rehabilitation phase and/or at the final medical assessment. Overall, a more conservative approach (i.e. longer time to return to sport) should be used in cases where there is any uncertainty about the player's recovery (*"if in doubt, sit them out"*).

Rehabilitation stage	Stage goal	Functional exercise	Objective
Stage 1	No activity	Complete physical and cognitive rest	Recovery
Stage 2	Light aerobic exercise*	Walking, swimming or stationary cycling keeping intensity <70% maximum predicted heart rate.  No resistance training.	Increase heart rate
Stage 3	Sport-specific exercise	Light training drills (e.g. running, ball work). No head impact activities.	Add movement
Stage 4	Non-contact training drills	Progression to more complex training drills. May start progressive resistance training.	Exercise, co-ordination and cognitive load
Stage 5	Full contact practice	Following medical	Restore confidence and

		clearance participate in normal training activities	assess functional skills by coaching staff
Stage 6	Return to play	Normal game play	Normal play

\* Light aerobic exercise can be commenced 24 to 48 hours after resolution of symptoms

**Table 2:** Graduated Concussion Rehabilitation Programme

Progression through the rehabilitation programme should occur with at least 24 hours between stages. The player should be instructed that if any symptoms recur while progressing through their return to play programme that they should drop back to the previous asymptomatic level and try to progress again after a further 24 hour period has passed.

### **A Final Medical Clearance before Resuming full Contact Training and/or Playing**

A player who has suffered from a concussive injury must not be allowed to return to play before having a medical clearance. In accordance with current consensus guidelines, there is no mandatory period of time that a player must be withheld from play following a concussion. However, the minimum requirement is that a player must be symptom-free at rest and with exertion, have a normal neurological examination, returned to baseline of balance function and determined to have returned to baseline level of cognitive performance.

## **Game Day Evaluation and Treatment**

The management plan outlined above applies to concussive injuries being managed on game day. The main difference is that players diagnosed with concussion on game day should not be returned to play on the day of their injury.

With all concussive injuries, the critical game day management relates to the basic first aid principles, which apply when dealing with any unconscious player (i.e. airway, breathing, circulation). Care must be taken with the player's cervical spine, which may have also been injured in the collision. When in doubt (e.g. unconscious or non-lucid athlete), the player should be removed from the field on a stretcher with appropriate cervical spine precautions and transported to an appropriate facility for formal assessment.

The key components of game day concussion management involve making an accurate diagnosis, differentiating concussion from structural pathologies and careful monitoring of the injured player.

The pocket **Concussion Recognition Tool** (pXX) is an important practical instrument that can be utilised on-field or on the sideline to screen for concussion. For a more detailed assessment, the player should be moved to a quiet room, away from the field of play (e.g. change rooms, medical room etc) for a detailed neurological examination and use of the full SCAT3. The aim is to confirm the diagnosis of concussion and to differentiate between concussion and high-risk intracranial or cervical pathology.



A player with any of the following should be sent immediately to hospital for assessment:

- Loss of consciousness.
- Neck pain or spinal cord symptoms.
- Seizures.
- Neurological signs.
- Prolonged confusion (>15 minutes).
- Persistent vomiting or increasing headache post-injury.
- Deterioration of conscious state post-injury (e.g. increased drowsiness).
- Obvious skull fracture (Cerebrospinal fluid rhinorrhoea/otorrhoea) or facial trauma.
- Development of new symptoms.
- High risk patients (e.g. known bleeding disorders).
- Where there is difficulty with assessment or uncertain follow-up (e.g. no responsible adult supervision).

*Overall, if there is any doubt, the player should be referred to hospital for urgent medical assessment.*

Players who have a normal neurological examination, are improving following their injury and have a competent person looking after them may be discharged home. These players and their caregiver (parent, partner etc) should be given clear and practical instructions, particularly regarding abstinence from alcohol and driving, medication use, physical exertion and timing of medical follow-up. Players should not be discharged home alone and a player who has been concussed should not drive until fully recovered. The SCAT3 form has a patient head injury hand out which may be given to the responsible caregiver and contains a list of the clinical features to be concerned about and an emergency plan in the event of deterioration.

Players should be followed up early after a concussive injury (to monitor progress in the sub-acute stages of their injury) and for medical clearance before they return to full contact and collision training or game play.

Tools such as the SCAT3 facilitate regular re-assessment of concussed players and provide simple and practical advice for patient education (see attachment). It is important to note that abbreviated sideline evaluation tools are designed for rapid concussion evaluation. They are not meant to replace a more comprehensive cognitive assessment and should not be used as a stand-alone tool for the ongoing management of concussive injuries.

## **Management of Concussion in Children**

There is evidence that younger athletes take longer to recover following a concussive injury than adults and that return to play on the day of the injury leads to subsequent cognitive deterioration. Moreover, there are specific risks (e.g. diffuse cerebral swelling) related to head impact during childhood and adolescence.

Consequently, a more conservative approach is recommended in all concussed footballers under 18 years of age, regardless of the level of competition in which they participate.

The diagnosis of concussion, monitoring concussive symptoms and physical and cognitive assessment must be modified in children because of physical, cognitive and language development. As such, a 'childSCAT3' has been developed for use in children ages 5 to 12 years. For children ages 13 to 17 years, the SCAT3 should be used. It will be noted that the childSCAT3 includes both a child-report and parent-report symptom scale. It is very important to include the parent/teacher/coach/guardian in assessing the child with concussion.

Once the diagnosis of concussion has been made, the priority in children is successful return to learn and return to school before considering return to play. Medical clearance is required before the child may return to school. In most instances, the child will only require 1 to 2 days off school, however in others, longer periods of rest will be required. Once the child's symptoms are not exacerbated by reading or using the computer, he/she may return to school, but a careful plan will need to be developed for the parents and teachers that provide appropriate accommodations for the child, such as shorter school day, longer time to complete assignments, repeating instructions and frequent breaks (see page 4 of the childSCAT3). Only after successful return to school without worsening of symptoms may the child be allowed to commence return to sport. Medical clearance is required and a stepwise, supervised programme should be used (see page 4 childSCAT3).

## Acknowledgments

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## Web Links

Selected Policies and Perspectives

### **American Academy of Pediatrics**

[American Academy of Pediatrics](#)

Sport-Related Concussion in Children and Adolescents

[Mark E. Halstead](#), MD, [Kevin D. Walter](#), MD, The Council on Sports Medicine and Fitness Pediatrics Vol. 126  
No. 3 September 1, 2010 pp. 597 -615  
(Weblink provided with permission)

### **American Academy of Family Physicians**

[American Academy of Family Physicians](#)

(Weblink provided with permission)

### **National Athletic Trainers' Association**

[2014 NATA Position Statement on Sport Concussion](#)

Steven P. Broglio, PhD, ATC; Robert C. Cantu, MD; Gerard A. Gioia, PhD; Kevin M. Guskiewicz, PhD, ATC, FNATA, FACSM; Jeffrey Kutcher, MD; Michael Palm, MBA, ATC; Tamara C. Valovich McLeod, PhD, ATC, FNATA  
(Weblink provided with permission)

### **Amateur Athletic Union**

[AAU Concussion Policy](#)

(Public Weblink)

### **American Medical Society for Sports Medicine**

American Medical Society for Sports Medicine Position Statement: Concussion in Sport

Authors: Kimberly G. Harmon, MD, Jonathan Drezner, MD, Matthew Gammons, MD, Kevin Guskiewicz, ATC, PhD, Mark Halstead, MD, Stan Herring, MD, Jeff Kutcher, MD, Andrea Pana, MD, Margot Putukian, MD, and William Roberts, MD.

*Executive Summary:*

Purpose of the Statement

\* To provide an evidence-based, best practices summary to assist physicians with the evaluation and management of sports concussion.

\* To establish the level of evidence, knowledge gaps, and areas requiring additional research.

Read the full position statement here -

[American Medical Society for Sports Medicine Position Statement: Concussion in Sport](#)

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**American Orthopedic Society for Sports Medicine**

[Concussion \(mild traumatic brain injury\) and the team physician: a consensus statement– 2011 update](#)  
(Public Weblink)

**Centers for Disease Control and Prevention**

[Concussion in Sports](#)  
[Head Up On-Line Training Course](#)  
(Public Weblinks)

**European Karate Organisation**

[Handbook for Tournament Doctors](#)  
Review Numbers 6 and 7 on Pages 7 and 8.  
(Public Weblink)

**International Ice Hockey Federation**

[http://www.iihf.com/fileadmin/user\\_upload/PDF/Sport/2014\\_IIHF\\_Medical\\_Regulations.pdf](http://www.iihf.com/fileadmin/user_upload/PDF/Sport/2014_IIHF_Medical_Regulations.pdf)  
[Medical Regulations- Concussions in Ice Hockey](#)  
Position Statement on Page 6.  
(Public Weblink)

**FIFA-Medical**

[Concussion in Sport](#)  
(Public Weblink)

**International Rugby Board**

[A Positive Approach to Concussion Management](#)  
[IRB Concussion Return to Play Protocols](#)  
(Public Weblinks)

**National Association of School Nurses**

[Concussions-The Role of the School Nurse-Position Statement](#)  
(Weblink provided with permission)

# CURRENT ISSUES

## Physical Activity for Health and Housewives

*Gladys Guerrero & Rosa López de D'Amico*

### Introduction

Diverse studies worldwide demonstrate that men's and women's participation and development in society is determined by sociocultural values and norms that are implicit and explicit, established that women are the ones who receive less socio-economical and political benefits – in some countries more than others – and this provokes a situation in which there is exclusion and inequity for the female population (World Economic Forum, 2013).

Work force is one of the sectors in which the differences between men and women are evident. The tasks that are undertaken by housewives are not considered part of the activities that have social value to estimate a countries' national income; it leaves aside activities that are done at home that are necessary for the well-being of family members and to have their daily basic needs met. Most of those activities that impact meaningfully on the wellbeing of family members are done by women (INEGI, 2010).

This means that there are activities that are important for the wellbeing of human beings and consequently implies a contribution to the society, so they should be considered as indicators of development. Nevertheless, traditional statistics and indicators do not have a methodology that considers this measurement. In the last decades, there have been advancements in the discussion to generate statistics that allow the measurement and value the activities that housewives do in order to improve their health in their spare time.

It is necessary to mention other aspects that impact on the activities that are done by housewives, such as the interest and concern related to changes produced in the socio-cultural dynamic that affects global macroeconomic policies and lifestyle that in consequence is transferred to lower birth rates, better education levels, more women participating in public policies and decision making positions, among others that have influenced the fact that women are more visible and enjoy more public participation (e.g., United Nations, 2011).

This paper presents findings of a study conducted with housewives, looking at their practice of recreational physical activity in their spare time. Participants all had children attending Padre Antonio Leyth public school in the popular suburb of 'Caña de Azucar', located in the municipality 'Mario Briceño Iragorry' of Maracay city, Aragua state, Venezuela. The 2011 population census indicates the density of the population (Caña de Azucar and José Felix Ribas) that surrounds the school is 366 inhabitants per square kilometer.

## Health Problems that Affect the World Population

The alarming figures related to health problems in the world population moves governments to establish educational policies to address education of individuals with good health who could live and develop efficiently in society. To feel well or to be fine is a cultural and co-existential condition that is related with good health. It is defined by the World Health Organization (WHO) as a complete state of wellbeing that involves the physical, mental and social condition and not just the absence of an illness. This makes us, as physical educators, reflect on the need to establish the importance of creating habits in society to practice recreational physical activities as a preventive resource of illness and as an element that generates health (e.g., López de D'Amico & D'Amico, 2007)

The abusive dependence on technology has been pointed to as one of the causes of sedentary lifestyle and consequently the lower physical condition of men and women. The other factor has been the changes in the diet and the abuse of fast food that has impacted health problems. The WHO indicates that chronic pain is the main cause of mortality and inability in the world, responsible of 59% of the 56.5 million annual deaths in the world, in which cardiovascular, diabetes, obesity and cancer are the most common. In Venezuela, among the most common causes of death in women (between 2006 – 2009) are cardiovascular illness and diabetes (INN, 2012; OPS, 2013).

The mothers of the children who studied at the Bolivarian 'Padre Antonio Leyth' School in this study were not far from the above reality. The reports from daily observations conducted by the researchers (both in school and community), the interviews conducted and the records of the community health center (Barrio Adentro Médico) made it evident that in the community in general there is no culture towards the systematic practice of physical activity to improve health. Moreover, the mothers had the tendency to suffer the illnesses mentioned before.

Another interesting aspect is that housework is one of the causes of the detriment of their health as it is daily work that demands physical effort, no salary or retirement pay; in some cases it generates postural problems, extreme effort and physical exhaustion. Some women believe that due to the fact that they do housework, they do not need to do any other physical activity as their daily housework keeps them active and healthy.

Nevertheless, the orientation of physical educators is fundamental to make those mothers feel motivated to participate in physical-recreational activities that benefit their health in their spare time. Cuadrado Roura (1999) indicated that the work that mothers do in the maintenance of their houses could motivate them to participate in activities in which they could enjoy and relax, as their domestic work is not remunerated and it is even sometimes ungrateful, which provokes resignation or impotence, and as a result it can provoke stress and depression.

Based on the previous words, recreational physical activity is of great importance as among its objectives are improvement of mental, social and physical health. It allows for the modification of habits and re-structure of a positive attitude towards life. The activities that support the improvement of the mothers' health and the community as a whole must be based on their needs, interests and expectations.

It was important that mothers from the 'Padre Antonio Leyth' school received information about the benefits of strengthening their physical qualities and its impact on the development of their daily activities, reduction of the risk of injuries by falls and its contribution to a healthy and active lifestyle (e.g., Guerrero & Mizrahi, 2011).

When participating in these activities, mothers had the chance to exchange experiences and communicate with other housewives; it contributed to their relaxation and improvement of their health. Recreation became an ideal alternative to occupy their spare time in a healthy way. As Guerrero (2010) indicates, recreation is a way to contribute to the integral development of the human being who is able to impact in the society through the positive use of their spare time.

## **Practical Experience**

The study started with the two physical education teachers from the Padre Antonio Leyth school who wanted to know about the activities that mothers or representatives of the children who studied at the school were doing in their spare time. They sought support from the research center EDUFISADRED at Universidad Pedagógica Experimental Libertador (Pedagógico de Maracay), Venezuela. The dynamic used allowed the researchers to interchange experience with the community, and an interesting relationship of learning experiences in both sense started.

The research was approached with a qualitative paradigm, based on participatory action research, and supported with descriptive field study. Key participants were identified and direct contact with the members of the community established in order to understand their needs and interests in recreational activities as well as their experiences in physical activities during their spare time. Triangulation was also used with data from community health center records and observational reports which allowed for the identification of human resources and structures / physical spaces to conduct physical activity.

The idea, once the results were analysed, was to establish a physical-recreation program for those mothers that could allow them to create habits and values towards physical activity as an alternative to improve their integral health and a healthy occupation of their spare time.

The total population was 250 mothers, between 35 and 55 years old. The information from the interviews with 42 mothers, plus observations allowed the researchers to collect data to produce the program for them.

## **Analysis and Results**

From interviews with the 42 participants, 36 of them did not participate in any recreational physical activity and the reasons were: lack of time, ignorance of their existence, no human resources to teach the physical-recreational activities, economic reasons and lack of motivation.

The observation of daily activities that the mothers undertook during a week (pre-intervention) showed: no practice of any physical activity (walking, running or biking) and an unbalanced diet.

The mothers were invited to participate in a 'day health check' conducted by 'Barrio Adentro Salud' and the results indicated that of the 42 mothers: 12 suffered diabetes, 13 had high cholesterol, 7 had respiratory problems, 10 had high blood pressure and 30 were overweight. This allowed medical staff to give recommendations to the mothers that they should participate in a controlled physical activity program in order to improve their health and consequently their quality of life.



These results were the support needed to elaborate a proposal called 'educational innovation'. It was based on a physical-recreational program addressed to the mothers, which would allow them to create habits and values towards physical-recreational activities as an alternative to improve their integral health and a healthy use of the spare time.

The recreational program presented included: objectives, activities, resources, responsible, date, time and place. The physical education teachers together with the researchers from EDUFISADRED coordinated the activities. The activities were programmed in the school but also in the community (park, basketball court, house of one of the participants). The activities were diverse and included zumba, walking, taekwondo, dance, karaoke, taichichuan and general discussions and exchanges of opinions.

## Conclusions

Through the participation in the program it could be observed:

9. More mothers participated in the physical-recreational program. More mothers also started to participate in other school activities as well.
10. Participants expressed that they valued and understood the importance of physical recreational activities as a means of socialisation that supported family and community integration.
11. The time dedicated to the physical activity participation became a place in which boys, girls and teenagers also got involved.
12. The mothers expressed that they felt their physical conditions were better and their interest in changing dietary habits and the use of their spare time improved.
13. Mothers felt motivated to incorporate other family members into the program.
14. Mothers expressed the importance to continue with programs of this nature in the future.
15. Physical education teachers were key actors in the implementation of this initiative

## Pedagogical Reflection

Recreation is of great value to support the creation and development of spaces to promote social exchange. It is based on physical-recreational activities, games, parties, contemplations, discussions to promote integral development of the human being. The participation of mothers in this program improved the social and interpersonal relationships as well as their organic development.

As more members of the community get involved it also helps development of the community, to exchange ideas and to improve social relationships as a whole.

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## Physical Activity and Cerebral Palsy

*Nagoor Meera Abdullah, Vincent Parnabas, Mohammad Nizam Mohamad Shapie*

### Abstract

The article reviews a number of studies on individuals with Cerebral Palsy (CP) and the relationship between the condition and muscle strength and exercise. CP is described as a condition/disability that affects muscle tone, coordination, balance and speech. Muscle weakness is part of the motor syndrome and it contributes to limitations in motor ability and is a common impairment in children with CP. This is why maintenance of muscle strength in terms of function is important when considering the amount and cost of care that is needed throughout daily living and also throughout a child's lifetime. Some studies reveal the importance of physical activity because of the benefits to overall health, which are well known especially to people with disabilities who are less likely to engage in physically healthy lifestyles compared to people without disabilities. This is because most inactive adults with disabilities exhibit increased severity of disease and reduced overall health and wellbeing and impairments such as weakness, muscle spasticity and deficient balance make it difficult for children with CP to participate in sport and play activities at a level of intensity sufficient to develop and maintain normal physical fitness levels. Weakness and muscle imbalance have been identified in children with CP, and these contribute to the weak walking gait. Children with CP must also be encouraged to be active in strength training since there is no evidence that strength training causes an increase in spasticity. This will avoid low levels of muscle weakness that may impact daily living.

*Keywords: physical activity; exercises; health; fitness; cerebral palsy*

### Introduction

Cerebral palsy (CP) been describes as “a group of permanent disorders of the development of movement and posture, causing activity limitation, that are attributed to nonprogressive disturbances that occurred in the developing fetal or infant brain” (Rosenbaum, Paneth & Leviton, et al., 2007). CP, with a prevalence of 2-3 per 1000 children, is the most common motor disability in paediatric rehabilitation. The cause of this condition has been controversial ever since 1843 when Little first described chronic encephalopathy in children (Rotta, 2002). In 1862, the link was made between the condition and abnormal delivery and until recently, it was considered that most cases of CP were the result of obstetric misadventure. However, careful epidemiological studies and brain imaging suggest that it frequently has antenatal antecedents and is often multi-factorial (Stanley, Blair & Alberman, 2000; Kerr Graham & Selber, 2003). It is now considered that developmental and genetic factors are responsible for 90% of cases, with only 10% due to intrapartum disaster (Cook, Frank & Berkowitz et al., 2002).

Because of their motor problems, children and adolescents with CP experience participation restrictions and limitations in physical activity. Physical activities (PA) have been defined as all body movements resulting in an increased energy output from the resting position. Children and adolescents with CP show

lower levels of PA compared to their healthy peers. Lower levels of PA contribute to reduced physical fitness, which may increase the risk of developing secondary health problems such as pain and fatigue, cardiovascular disease and diabetes mellitus later in life. Moreover, PA is assumed to have a positive relation with health related quality of life and psychosocial functioning (Claassen, Gorter & Stewart 2011).

## **Studies in physical activity and children with cerebral palsy**

Physical activity is very important for persons with disabilities in general. Children with CP can participate in physical activity even though they are weaker (Brown, Rodda, Walsh & Wright, 1991; Elder, Kirk & Stewart, et al., 2003; Engsberg, Ross, Olree & Park, 2000; Rose & McGill, 2005; Wiley & Damiano, 1998; Stackhouse, Binder-Macleod & Lee, 2005), have less endurance (Campbell & Ball, 1978; Hoofwijk, Unnithan & Bar-Or, 1995; Unnithan, Dowling, Frost & Bar-Or, 1996) and exhibit reduced physical activity levels compared to children without CP. The revelations of past studies are of concern because of the benefits of physical activity and exercises to overall health are well known, especially to people with disabilities who are less likely to engage in physically healthy lifestyles compared to people without disabilities. Additionally, inactive adults with disabilities exhibit increased severity of disease and reduced overall health and well-being (Rimmer, 2005). Impairments such as weakness (Damiano, Vaughan & Abel, 1995), muscle spasticity (Sanger, Delgado, Gaebler-Spira, et al., 2003) and deficient balance (Nashner, Shumway-Cook & Marin, 1983) make it difficult for children with CP to participate in sport and play activities at a level of intensity sufficient to develop and maintain normal physical fitness levels. More study is needed to identify safe and effective methods to improve physical fitness in this population.

There is strong scientific evidence that youth with low physical activity and fitness levels and high body fat levels are more likely to display additional risk factors for cardiovascular disease such as elevated blood pressure and serum cholesterol levels (Durant, Baranowski & Rhodes, et al., 1993; Tolfrey, Campbell & Jones, 1999; William, Going, Lohman, et al., 1992). The Center for Disease Control and Prevention (CDC) have concluded that daily participation in developmentally appropriate, moderate to vigorous physical activity lasting 60 minutes or longer can reduce body fat, encourage weight loss, and improve aerobic fitness in youth aged 6 to 18 years without disabilities (Strong, Malina & Blimkie, et al., 2005). A few studies also suggest that some degree of positive association may exist between physical activity and various indexes of mental health, including anxiety, depressive symptoms and physical self-concept (Strong, Malina & Blimkie, et al., 2005).

Some studies exposed that children with CP display low levels of cardiorespiratory fitness, as evidenced by a reduced peak  $VO_2$  max or a higher submaximal energy demand of walking (Hoofwijk, Unnithan & Bar-Or, 1995; Unnithan, Dowling & Frost, Bar-Or, 1996). These findings are alarming because reduced cardiorespiratory fitness may contribute to poor general health. Children with CP have difficulty performing purposeful and efficient physical movements for many reasons, including weakness, abnormal muscle coactivation, involuntary movement, poor selective voluntary motor control, spasticity, contractures and decreased balance (Unnithan, Dowling, Frost & Bar-Or, 1996; Damiano, Vaughan & Abel, 1995; Sanger, Delgado & Gaebler-Spira, et al., 2003; Nashner, Shumway-Cook & Marin, 1983; Sanger, Chen & Delgado et al., 2006). These impairments can limit a child's ability to play and exercise at certain intensity levels necessary to develop cardiorespiratory fitness. The element of fatigue among people with CP, is thought to be a result of using an abnormally high percentage of their peak energy resources during physical activities (Unnithan, Dowling, Frost & Bar-Or, 1996; Rose, Morgan & Gamble, 2006). For children with CP who are

able to walk, the locomotor energy demands increase with age, making it difficult to sustain their walking endurance as they transition into adolescence and adulthood.

Reductions in cardiorespiratory fitness in children with CP have been related with outcome measurements of body functions and structures (Campbell & Ball, 1978; Hoofwijk, Unnithan & Bar-Or, 1995; Unnithan, Dowling, Frost & Bar-Or, 1996; Van den Berg-Emons, Saris, De Barbanson, et al., 1995; Maltais, Pierrynowski, Galea & Bar-Or, 2005; Johnston, Moore, Quinn & Smith, 2004). Cardiorespiratory fitness is measured by determining the amount of energy expended during movement and exercise at the body function level. The most common method of assessing cardiorespiratory fitness in clinical laboratories is indirect calorimetry, where heat production by the body is estimated from oxygen use. With this technique, expired air is collected using a metabolic data collection system, and gas samples are analysed for volume and for oxygen and carbon dioxide content. Standardised equations are then used to calculate the volume of oxygen consumed (Powers & Howley, 2004). Typical outcome data include gross  $\text{VO}_2$  (Powers & Howley, 2004) expressed relative to: (1) body mass and time (in milliliters per kilogram per minute) or (2) body mass and distance travelled (in milliliters per kilogram per meter or milliliters per kilogram per kilometer). Oxygen uptake also can be expressed in net terms by subtracting resting  $\text{VO}_2$  value.

Using this reliable method, study has shown that children with CP display excessive energy expenditure values for a given speed of walking (Campbell & Ball, 1978; Hoofwijk, Unnithan & Bar-Or, 1995; Unnithan, Dowling, Frost & Bar-Or, 1996; Durstine, Painter & Franklin et al., 2000). Estimates of energy use in children with CP range from 2 to 3 times higher than values for children without disabilities when walking at comfortable over ground speeds (Campbell & Ball, 1978; Durstine, Painter & Franklin et al., 2000) and increase with level of walking disability. Energy expenditure has been documented in 10 children with spastic diplegic CP and 15 children without disabilities (Johnston, Moore, Quinn & Smith, 2004). At a lower average walking speed (41.3 versus 66.7 m/min),  $\text{VO}_2$  (19.7 versus 6.3 mL/kg/min) and oxygen cost (0.55 versus 0.09 mL/kg/m) were significantly elevated ( $P<.05$ ) in children with CP versus controls.

In addition to increased energy demands during walking, lower levels of peak energy reserve have been reported in children with CP (for example, significantly lower mean peak  $\text{VO}_2$  levels) compared with children without disabilities during treadmill walking (Hoofwijk, Unnithan & Bar-Or, 1995; Unnithan, Dowling, Frost & Bar-Or, 1996).

Pirpiris and Graham (2004) revealed that children with CP spend more time sitting with less movement compared to their peers without disabilities. An inverse relationship was observed between severity of disability and time spent in an upright position. The average upright time was 5.6 hours for children without disabilities versus 5.1, 2.5 and 0.5 hours for children with spastic hemiplegia, spastic diplegia and spastic quadriplegia, respectively. Mean upright times for children with CP were significantly lower ( $P<.01$ ) than those for children without disabilities. A study by Bjornson et al (2007) showed that, once upright, children with CP took significantly fewer steps per day (4,244) compared with children without disabilities (6,740) ( $P<.001$ ). The Gross Motor Functional Classification System (GMFCS) (Palisano, Rosenbaum, Walter et al., 1997) is an explanation of mobility function at the activities and participation levels of the ICF (International Classification of Functioning, Disability and Health). Children who walked independently at GMFCS level I (without restrictions) averaged more steps per day compared with children who walked at levels II (with restrictions) and III (with assistive devices) ( $P<.001$ ) (Bjornson, Belza, Kartin & McLaughlin, 2006).

There are several tests that can measure the level of physical fitness among children with CP. The 600-Yard Walk-Run Test is a standardised physical fitness test developed for school-aged children. In this test,

children are asked to complete a 600-yd (548.6-m) distance as quickly as possible by running or walking. Fowler et al. (2007) used this test for children with intellectual disabilities who could not be expected to tolerate physical education test batteries that include distances of up to 1 mile (1.6 km). They found a high correlation ( $r=.80$ ) with laboratory measures of peak  $\text{VO}_2$ .

Darrah et al. (1999) mentions a study on endurance exercise as one component of a community physical fitness program for 23 participants with CP between 11 and 20 years of age. Aerobic dance routines were designed to ensure a cardiovascular workout routine with minimal balance requirements. The majority of subjects were able to attain heart rates above 145 bpm during exercise. Although heart rate based measures of cardiorespiratory fitness during stationary cycling did not change as a result of this intervention, a significant improvement ( $P<.006$ ) in the physical appearance subscale of the Self-perception for Adolescents Profile was reported (Darrah et.al., 1999). Community physical fitness programs with physical therapy guidance may be an ideal method to transition children from individual physical therapy sessions to lifelong physical fitness programs.

## Conclusion

Exercise and strength training is very important for individuals with CP regardless of their age. This should be integrated into their daily life so that, the more harmonious body act as the workforce to execute activity in daily living settings. Physical activity is vital because the benefits to overall health are well known especially to people with disabilities who are less likely to engage in physically healthy lifestyles compared to people without disabilities.

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## Increasing the Role of Education in Prevention

Rob Koehler

***WADA's Director of Education and Program Development, Rob Koehler, examines the growing importance of education and the delivery of values-based messages in the prevention of doping in sport.***

The Lance Armstrong case has reinforced what educators have been saying for years. If you have a problem – whether it is in the field of health, crime or traffic laws – you need to ensure comprehensive detection and the ability to investigate is in place.

However, experts from these same fields will tell you that the most effective way of reducing a problem is through prevention which includes both providing information and values-based education.

Information outlining why the rules are in place and how they will ensure a better or safer community should be provided to the population. The key to success is to ensure an understanding of why rules are in place and communication of what those rules mean.

In terms of anti-doping education, it is important that those concerned – athletes, coaches, officials, parents – are aware of their roles and responsibilities and what the consequences of breaking these rules are. Whether it is harmful to one's health, against the rules, against the spirit of the game, and finally whether or not it is cheating.

When it comes to prevention, a more crucial and long-term strategy is needed. Individuals need to be provided with options and alternatives, in order to empower them with sound decision-making skills that, when faced with a situation to break the rules, a moral process is triggered. Perhaps more importantly, it is imperative that moral decision-making is constant and does not waiver. Prevention programs do not have an immediate effect; they take time, sustained commitment and resources.

Looking at the World Anti-Doping Code (Code), most of it deals with detection, a small percentage addresses the provision of information and an even smaller percentage covers prevention.

A lot more focus needs to be placed on prevention. In addressing the imbalance and putting more focus on prevention, we may achieve greater success with our efforts to rid sport of doping.

## Cheating in Society

As mentioned earlier, doping is cheating. Sport is not the only arena where cheating is taking place in our society – lawyers inflating billing, doctors accepting cash and gifts from pharmaceutical companies in return for prescribing medications, corruption in the finance industry, tax evasion or simple cheating on ones taxes, or students and academics plagiarising.

Children experiment with cheating – whether it is while playing simple games or sports – and have a consistent need for a moral compass. However, young children will “call” each other out when cheating. The last thing a child wants to be known as in school is a cheat.

Many parents enrol their children in sport to advance their skills and keep them out of trouble, to teach them structure and discipline, to follow the rules, and because sport reinforces moral development. But does it? A study examining moral values of 11–12 year old athletes and non-athletes revealed that while not surprisingly the two groups were very similar, [1] a follow-up study of the same students six years later showed the non-athlete students had a stronger value set.

So what does that tell us about what we learn from sport, or about those involved in the administration of sport? Is the win at all cost mentality really what is being reinforced?

The owners of professional ice hockey clubs in North America are trying to manipulate the salary cap. In fencing, some athletes are taught to untie their laces in order to take a breather in the middle of a bout, when taking a break at this time is against the rules of the sport. During the London 2012 Olympics, badminton players and coaches were found to be throwing matches to manipulate their draw. In all sports, changes to equipment based on new technology are used to try to gain an edge in performance that is not based on physical merit or sporting talent.

Are all of these just parts of the game, are sport and society condoning the efforts of those who work the rules of the game and push the boundaries to their maximum? Are they reinforcing the belief that it is necessary to cheat or take short cuts?

Arguably, sport is a microcosm of society. Bribery, corruption, trafficking and match-fixing are unfortunately part of both sport and society. It was once believed that sport was above these risks – this is no longer the case. For many involved in sport, there is far too much to gain from engaging in these behaviours to avoid them.

In North America, it is suggested that approximately one percent of the population is rich, the upper middle class is shrinking and the lower class is growing. The case could be made that the same categories exist representing the different athlete populations. Very few athletes are millionaires, some live a middle-class life but the majority barely gets by financially.

As in society, individualism is becoming more and more prominent as the stakes get higher and there is a need to self-promote. Why not cheat if the rewards are so high? Everyone is doing it, right? The reality is that what some athletes used to make in total career earnings, some are now making in under a year. Sport was not always a multi-billion dollar industry.

The inherent need to self-promote is clearly part of society and potentially now part of sport. This generation is often referred to as the ‘Me Generation’ – where self comes first, always being told to “be yourself”, “believe in yourself”, “it doesn’t matter what people think of you”.

For the ‘Me Generation’, there are higher expectations to succeed and have the best in all aspects of life. It is not important how you get there, just as long as you get there.

## Moral Disengagement

In his report 'A National Investigation of Psychosocial Factors Facilitating Doping in Body Builders', Dr. Ian Boardley demonstrates how moral disengagement can explain an athlete's rationale for engaging in doping behaviours. [2]

He has identified six main areas: moral justification, where athletes find ways of thinking it is not that bad; euphemistic labeling, where athletes refer to drugs with other names – for example using 'juice' instead of steroids – to avoid the stigma; advantageous comparison, implying that it is acceptable to engage in certain high risk behaviour because one is not engaging in others, for example saying it is ok to take steroids because you do not smoke or drink alcohol; displacement of responsibilities, indicating that "everybody else is doing it, so I have to"; diffusion of responsibility, "if everyone is doing it, it must be right"; and distortion of consequences, thinking that "it is not as bad as people say".

If we look at government and sport leaders the question can be asked, what are the incentives for exposing doping, bribery, corruption or match fixing? Would it not be true that strong leaders should embrace the opportunity to expose such evils, moving away from "self" and looking after the community? Sport could have a positive influence on society.

It is submitted that education is the key to overcoming these problems. However, in order for education to be effective, it must start with parents, teachers, young people. Currently, most anti-doping organisations target their education initiatives at the elite athlete population. While more difficult to prevent doping through education with this below-elite-level population, it can be done.

In order to reach these target groups, we need to take a unified approach. The military model of 'unity of effort and unity of object' can be applied in this endeavour. 'Unity of effort' requires a number of people or groups to come together, while 'unity of object' requires those groups to have the same goals.

## Mechanisms of Delivery

Many different stakeholders need to be engaged in anti-doping in order to be successful. WADA cannot do it alone. WADA needs the help of the International Olympic Committee (IOC), governments (in order to reach schools and get into the communities), UNESCO, International Federations (IFs) and National Anti-Doping Organizations (NADOs).

Existing mechanisms of delivery in addition to schools – such as sponsors, television and radio broadcasters, print and visual media – need to be harnessed to raise awareness; starting at the top.

When considering a way forward, more emphasis needs to be placed on having governments embrace the message of clean sport by supporting the provision of information, education and prevention programs, and by providing access to schools.

WADA is committed to working with partners to develop material and tools; however, it is important for this material to be customised to ensure that it is relevant to the local community.

Even at international level we must use existing mechanisms to ensure that the messages are shared and that tools are used. For example, when reaching schools through UNESCO's Associated School Project

Network, the influence of the IOC and IFs on those who are following them and the need to buy into their activities is important. There is the need for a global program with a local approach.

## From Information to Education

While there is a clear difference between the provision of information and the provision of education, there is also a clear need for both approaches in the fight against doping in sport. There will always be a need for 'just in time' answers to questions. Is this substance prohibited? How do I apply for a TUE (Therapeutic Use Exemption)? Where do I submit my whereabouts information?

Providing information through leaflets, factsheets and making the answers to these questions easily accessible is key to helping athletes avoid inadvertently doping.

But to prevent the possibility of doping even entering the realms of possibility for an athlete, or the athlete entourage, values-based education programs need to be provided.

The aim of such programs is to not only increase knowledge and change attitudes, but to reinforce positive values that shape decision making.

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# The Presidential Youth Fitness Program

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The Presidential Youth Fitness Program was launched on September 10, 2012 by the America President's Council on Fitness, Sports and Nutrition. This program has replaced the 24-year old Physical Fitness Test for youth and has been promoted in all elementary and secondary schools across America since the commencement of the 2013-2014 school year. The updated program is a comprehensive program which emphasises health over performance and uses FITNESSGRAM® to assess a student's fitness.

FITNESSGRAM® uses criterion-referenced standards to evaluate fitness performance. These standards have been established to represent a level of fitness that offers some degree of protection against "hypokinetic" diseases (i.e., conditions that result from sedentary living). Performance is classified into two general areas: Healthy Fitness Zone (HFZ) and the "Needs Improvement" zone. Attaining the HFZ for a test indicates that the child has a sufficient fitness level to provide important health benefits. The "Needs Improvement" zone should be interpreted as an indication that the child may be at risk if that level of fitness stays the same over time. For the body composition item, a third Very Low area is designated within the HFZ. Scores falling in this area deserve special attention to determine why the student's score is very low.

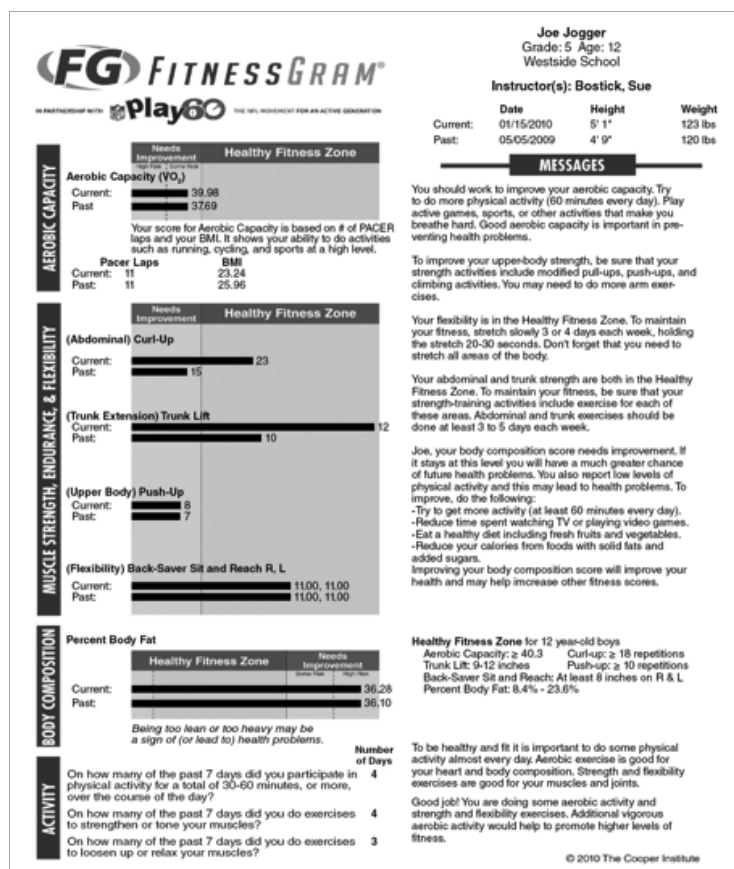


Figure 1. Sample student FITNESSGRAM computer report

The new program also includes educational and motivational tools to support educators and empower students to adopt an active lifestyle since less than one in five youth get the exercise they need and high rates of childhood obesity are sweeping America.

The author has used information research and documentation method to interpret and analyse the background, goal, content, organisational support system and implementation of the Youth Fitness Program, to draw conclusions on how it may be used as a reference for China's youth physical fitness test, its policy, reform and development of physical education in the elementary and secondary schools.

The many reasons to look to the Youth Fitness Program include: the launch of the program and implementation having a complete, organised support system; the goal of the program is to nurture lifelong fitness awareness of youth and active healthy life style; and the content of the program is guided by the most advanced and scientific fitness assessment system.

Key learnings from implementation of the program include: the establishment and implementation of the policy of youth fitness should be carried out in collaboration with the complementary resources of government, physical and health organisations and social education groups; the contents of the program should be concrete and practical; the implementation of the program should be deeply entrenched into current physical lessons with the syllabus through the interaction of students, schools and parents; and to interpret performance on physical fitness assessments we should use the following principles:

- The physical fitness experience should always be fun and enjoyable.
- Physical fitness testing should not become a competitive sport.
- The performance of one student should not be compared to that of another student.
- The primary reason for testing is to provide the student with personal information that may be used in planning a personal fitness program.
- The performance level on fitness tests should not be used as a basis for grading.

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## Review: My Greek Drama, Angelopoulos, G. (2013)

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When the world's spotlight is focused on one city and its ability to showcase the most celebrated sport competition, some may crack under pressure. For the first time, Athens, Greece would instill limitless trust, power and admiration in a single individual – Gianna Angelopoulos – to avoid this. Struggling to nurture herself and her country, Angelopoulos devoted her life for a cause greater than herself. The 2004 Summer Olympics, officially known as the Games of the XXVIII Olympiad, took place in Athens, Greece and would later go on to be named the “unforgettable dream games”, by International Olympic Committee (IOC) President Jacques Rogge.

In *My Greek Drama*, Angelopoulos opens her heart and tells experiences of her life's journey from a small, rebellious but brilliant young girl in Crete; to her transformation as a young lawyer seeking an Athens city council position; to her most prestigious battle as a top bureaucrat and leader of a new Greece during the 2004 Olympic Games. She is very personable and equally warming in her storytelling. Rather than just being a reader, her conversational style of writing is engaging. Her emotional ties and expressed first-hand accounts are transferable to all walks of life.

Angelopoulos' love-hate relationship with Greece is conveyed in a gravely detailed, first-person narrative. She tells how she overcame her many battles in the male-dominated legal and political cultures of Greece. Her childhood dream came true however, as she actively practiced and redefined public service in Greece. “We must break the shackles of inefficiency that have created a culture of dependency” (p.298). Tackling each obstacle, she diligently worked to become the most respected woman in the Greek modern era.

The book is broken into two phases of major life events: pre- and post-Olympic triumph. The first portion of the book provides relevant Greek history and tradition needed to fully appreciate the latter half. In addition, she gives the history and tradition of her family. This blueprint of her earlier years shows that she was groomed to be a woman of allegiance and resilience. She paints a colorful portrait of her triumphs and struggles as a young woman. Her life is one that she could have never imagined balancing the woes of motherhood, marriage, politics and Olympism.

The second portion of the book describes her success outside of Greek Parliament and her summoning to rescue the Olympic bid. This portion also illustrates how colleagues, who once hindered her success in Greece, were now reliant on her return to serve her country. Hard-working and underappreciated, Angelopoulos could not refuse a challenge that would expose an opportunity to fulfill her “childhood dream a second: to do something truly great” for her beloved country (p.147). She helped secure the bid as host

city by going above and beyond the call of duty. She made many personal sacrifices in the hope that a great country would rise and transform before her eyes.

Through this medium of art, the reader is able to accurately track and identify each political challenge, failure, betrayal, success and redemption. In the grand scheme of things, the values of responsibility, civic duty, and leadership are the impressions that she bestowed upon her countrymen. *My Greek Drama* illustrates the pride that everyone should take toward his or her ambitions to change the world in which they live.

This book is a phenomenal read, targeted at bright and innovative professionals either beginning their career or struggling to find their niche. It is important to note the key take away points from this book: life obstacles that you do not overcome are not defeats; they are alternate routes to your road of success. The lessons learned in this reading highlight the importance of reflecting on, learning from and building toward the future you envision most beautiful.

## Contact

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## ICSSPE News

*Ben Weinberg*

### Learning by Doing

#### **Successful Development Seminar by ICSSPE**

From 18 to 23 October 2013, ICSSPE hosted the sixth edition of “Communities and Crisis – Inclusive Development through Sport” in Rheinsberg, Germany.

The event brought together 45 participants and 16 experts with different backgrounds, who shared their knowledge and experiences. In the course of the seminar the participants dealt with psycho-social aspects of sports and gained an insight into various perspectives on how to plan and implement programmes in crisis settings. The seminar included more than eighteen workshops concerned with inclusive community building through sport. The main topics revolved around cultural competence, trauma, sport, inclusion, gender, psychosocial support, social innovation and monitoring and evaluation.

At the beginning participants were divided into eight groups and received a case study, which they had to work on during the seminar. The aim of this assignment was to apply the knowledge gained from the different workshops to a particular case and develop a suitable concept. The task required sensitivity with regard to designing a programme under consideration of aspects such as cultural diversity, gender and inclusion of all age groups.

More than 30 nationalities participated in the seminar and the multicultural environment was highly appreciated by all. In fact the structure of the seminar provided opportunities to share experiences, exchange ideas and learn from people from countries such as South Africa, Colombia, Oman, Pakistan, Canada, Costa Rica, Japan and Kenya.

The successful hosting of the event was ensured by the Federal Ministry of the Interior, the Fürst Donnersmarck Foundation, Otto Bock HealthCare, Hotel HausRheinsberg, all Germany, Kennesaw State University, Katholieke Universiteit, Leuven, Belgium, as well as all workshop facilitators and participants.

Further information can be obtained from

<http://icsspe.org/content/communities-and-crisis>

## **MINEPS V Follow-Up**

### **Latin America and Caribbean Taking the Lead**

Ministers and further leading representatives from ten Latin American and Caribbean ministries decided to take next steps towards the implementation of decisions adopted at the 5th International Conference of Ministers and Senior Officials Responsible for Physical Education and Sport (MINEPS V).

During their meeting on 18 and 19 October 2013 in Bogota (Colombia) they agreed, among others, to work towards better access to quality physical education and sport including the piloting of guidelines and tools to enhance the provision of quality physical education; to exchange information on sport policy structures through the establishment of a regional observatory; to monitor follow-up activities; and to start with a mapping of existing data collection in the fields of physical education, physical activity and sport by national agencies for statistics, self-assessment centres and research institutes.

ICSSPE Executive Director Detlef Dumon, who attended the meeting as a member of UNESCO's Permanent Consultative Council, welcomed the initiative by UNESCO and Colombia's national sport organisation Coldeportes. He stressed "the importance of harnessing the spirit of MINEPS and the willingness of many governmental and non-governmental institutions to implement the decisions adopted at the conference in May." Dumon reiterated "the need for now taking practical steps at the national and regional levels as well as to continue to convince strategic partners of the benefits of physical education, physical activity and sport for the sake of individual, social and economic development."

UNESCO and ICSSPE are striving for further conferences in other UNESCO regions.

For further information please contact the ICSSPE Executive Office at [icsspe@icsspe.org](mailto:icsspe@icsspe.org).

## **Calling for Collaboration**

### **ICSSPE Session at Play The Game Conference**

As programme partner of Play The Game, ICSSPE organised an expert session on holistic sport policies.

Entitled "Managing conflicting Agendas – Profit, Participation or Performance?" the session took place on Thursday 31 October 2013 and explored perspectives for comprehensive sport policies and systems under consideration of the different interests of all actors and sectors involved in sport and health. This included an assessment of objectives, strengths and deficits, risks and opportunities, bearing in mind pressing issues commonly referred to with terms such as integrity, accessibility, sustainability, transparency and accountability. The approach was thought of as encompassing all relevant sectors and actors while stressing the interconnectedness of all themes covered by national and international sport policies, i.e. participation on different levels for different groups of population, physical education, infrastructure, mega events or good governance.

The session was chaired by ICSSPE President Margaret Talbot and started with a presentation by Koen Breedveld (Mulier Instituut, Netherlands) who delivered an overview of approaches, concepts and topics in comparative sport policy research. Karen Petry (German Sport University Cologne) then provided insights into the role of governments and respective policies with a focus on grassroots and participation. James Dorsey (S. Rajaratnam School of International Studies, Singapore) continued by portraying the link between

sports and politics drawing upon examples from the Middle East and Asia, followed by Ben Weinberg (ICSSPE) who outlined the significance of international sport governing bodies based on a case study of the Asian Football Confederation. Margaret Talbot completed the session by compiling all insights, putting them into context and emphasising the importance of developing holistic sport-political concepts through multi-disciplinary collaboration. She then reiterated her arguments in the final plenary session of the conference, where she elaborated on the challenges of Physical Education and Science.

The conference title was "Stepping up for democracy in sport" and the topics encompassed all relevant aspects related to sport and society. Approximately 350 journalists, scientists and sport officials from 38 countries participated in this global communication forum and helped fostering dialogues and debates on current challenges and perspectives that sport and society envisage.

Photos, videos and presentations are available through

<http://www.playthegame.org/conferences/play-the-game-2013.html>

## **Global Coalition for an Active World**

### **23rd TAFISA World Congress**

On 24 October the kick-off meeting of the Global Coalition for an Active World took place in Enschede (Netherlands).

Twelve international organisations convened in the course of the 23rd World Congress of The Association for International Sport for All (TAFISA) in order to discuss tuned activities against the increase of global physical inactivity. Under the co-moderation of ICSSPE Executive Director Detlef Dumon and Tafisa Officer Bae Dixon, delegates from the fields of sport, sport science and physical education stressed the need of creating a platform to increase participation in sport for all and physical activity.

Launched by TAFISA and supported by ICSSPE, the initiative saw representatives of all participating organisations - most of them ICSSPE members - share their experiences with regard to public health and physical activity. All representatives were alarmed by evidence that backs general observations of a decreasing activity level. Under consideration of each member's core mandate and existing initiatives like Designed to Move, delegates discussed on how to offer new opportunities for a physically active lifestyle to old and new target groups and how joint efforts might lead to an increased efficiency.

For further information, please contact the ICSSPE Executive Office at [icsspe@icsspe.org](mailto:icsspe@icsspe.org).

## **UNESCO Endorses Berlin Declaration**

### **MINEPS V Follow-up**

The 37th UNESCO General Conference held in Paris from 5 to 20 November 2013 has endorsed the Berlin Declaration.

Following the adoption of the Berlin Declaration at the 5th International Conference of Ministers and Senior Officials Responsible for Physical Education and Sport (MINEPS V) in Berlin in May 2013, the suggestion to revise the International Charter of Physical Education and Sport from 1978 was dealt with at the UNESCO

General Conference. It was accordingly decided to issue a report on the desirability of revising the Charter and submitting it to the General Conference at its 38th session in 2015.

At the national level meanwhile, the German coalition partners of the Christian Democratic Union (CDU) and Social Democratic Parties (SPD) have emphasised the importance of a continued follow-up strategy to MINEPS V in their provisional coalition agreement released in late November. Previously the German Federal Ministry of the Interior had organised four thematic meetings in September 2013 attended by representatives from the federal states, sport organisations, NGOs and sport science in order to discuss the current state of inclusion of persons with a disability, the conditions for girls and women in sport, the sustainability of sport infrastructure and the fight against match fixing and corruption. Furthermore the German federal states have engaged in a process of dealing with the issue of inclusion in sport, with a special focus on inclusion in physical education in the context of the implementation of the UN Charter on the Rights of Persons with Disabilities. With regard to girls and women in sport, it has been decided to improve opportunities to have access to leadership positions. And concerning sport events, the idea is to develop a general concept as basis for planning and conducting these in a sustainable way.

As for preserving the integrity of sport, progress is closely linked to the Convention of the Council of Europe (CoE) to combat the manipulation of sport competitions. A draft Convention is currently subject to debate amongst CoE member states. A meaningful outcome, signed by the majority of CoE member states will help further increase the priority of integrity at the national levels and might lead to more cooperation and stronger commitments regarding match-fixing and corruption in sport.

The Berlin Declaration calls for making access to sport a fundamental right for all, promoting investment in physical education and sport programmes and preserving the integrity of sport. MINEPS V, the event leading to the Declaration's adoption, was coordinated by the International Council of Sport Science and Physical Education (ICSSPE). It was commended for its extensive stakeholder involvement and was described as a progressive move in international sport collaboration, going beyond mere words. The endorsement at the UNESCO General Conference provides the Berlin Declaration with further political weight and can serve to strengthen the follow-up at the national levels.

Further information can be obtained from

<http://www.unesco.org/new/en/social-and-human-sciences/themes/physical-education-and-sport/mineps-2013/>

## **Call for more Monitoring and Evaluation**

### **ICSSPE President Talks at Peace and Sport Forum**

The 7th Peace and Sport International Forum took place in Monaco from 6 until 8 November.

Invited to participate in the Forum, ICSSPE President Margaret Talbot took the stage during the last session entitled "Recommendations". After stating ICSSPE's mission, at the crossroads between science, policy and practice, and outlining some of the work currently undertaken (Communities & Crisis seminar; handbook on using sport for post-disaster psycho-social recovery), she stressed the importance of collaborating and finding a common ground between the different actors. She emphasised that "practice, policy and science ought to be complementary worlds. Practitioners shouldn't turn off when researchers speak. Researchers

need to translate what they say into understandable language. And policy-makers need to listen. We've heard a lot about the non-listening stance of many policy-makers, whether they're in government, in business or in NGOs."

She then drew attention to the importance of monitoring and evaluation saying: "There is still not enough in the monitoring and evaluations area, and sharing of the practice. It's a desperate need." Talbot raised the question of where there is "the evidence for the efficacy of sport as a tool" and stated that "it's so vital that capacity for monitoring and evaluation is built particularly amongst the NGOs that are delivering on the ground. Lack of evidence doesn't mean to say it isn't there. It's because the data hasn't been collected in many cases."

The Forum was attended by more than 700 decision-makers and opinion-leaders from sport governance, politics, international organisations, NGOs and the private sector, as well as academics and top-level athletes from over 100 countries. The aim of the conference was to bring all these actors together to discuss how sport can contribute to peace processes and peace-building projects all around the world through fostering networking and partnerships.

Videos of all the sessions can be obtained from (Margaret Talbot participated in the fifth session, starting at 9 min.): <http://www.peace-sport.org/en/forum/forum-2013/videos.html>

## **ICSSPE Advocates for Physical Activity in Childhood**

### **Excellence in Paediatrics in Doha**

ICSSPE participates in the Excellence in Paediatrics Conference in Doha, Qatar.

The "Excellence in Paediatrics" Institute organised its annual conference from 4 to 7 December 2013 in Qatar. An ICSSPE delegation, including ICSSPE President Margaret Talbot and Executive Director Detlef Dumon, attended the conference to share knowledge about physical activity in health promotion. Delegations included specialists from the medical health, the physical activity and the nutrition sectors. An Active Healthy Living Summit, integrated to the conference and aimed at promoting physical activity, was held on December 6th.

On December 7th, Talbot and Dumon participated in a Round Table entitled "Physical Activity in Childhood". Dumon noted that there is still significant work to do, especially for smaller children: "Focusing on Primary School physical education is very important and we must insist on its development. But at that age, it's already very late in a way. More support is needed for the Kindergarten level." Margaret Talbot also pointed out that there are particular health challenges for children in the Gulf countries, directly caused by inactivity, related to climate and lifestyle.

Working towards multi-disciplinary collaborations will remain a central part of ICSSPE's work in 2014. As Margaret Talbot states: "ICSSPE is delighted to be working with a network of paediatricians, especially on positive means of health prevention through physical activity". Further developments will, for example, involve cooperation with ICSSPE's member and partner, the American College of Sports Medicine (ACSM).

Excellence in Paediatrics 2013 conference website: <http://2013.excellence-in-paediatrics.org/>

Active Healthy Living Summit website: <http://pearl.excellence-in-paediatrics.org/>

Robert E. Sallis comments on the Active Healthy Living Summit: <http://eip2013highlights.excellence-in-paediatrics.org/Testimonials/i-g97KPQq/A>

Manuel Joaquin Castillo comments on the Active Healthy Living Summit:  
<http://eip2013highlights.excellence-in-paediatrics.org/Testimonials/i-zNbTwFm/A>

## **ICSSPE & Partners to Release Handbook in 2014**

### **Sport and Physical Activities as Psycho-Social Interventions**

Sport and Physical Activities as Psycho-Social Interventions handbook will be published in May 2014.

A practical handbook, aimed at humanitarian aid workers, is due to be released in May 2014. It will include background information on psychosocial intervention as well as different guidelines on how to better implement sport and physical activities in practice (activity cards will be available). Katrin Koenen, head of the project at ICSSPE, states: "With this project, ICSSPE is extending its outreach to other areas of civil society, namely to healthcare professionals, humanitarian aid workers, etc... This handbook, which has been developed in cooperation with the Red Cross and Red Crescent Societies, the Swiss Academy for Development and the Technical University of Munich, will demonstrate how this can be accomplished."

A comprehensive information section will provide systematic information on the following: Planning training sessions, Being aware of health and safety, Avoiding conflict and violence, Forming and organising teams, Developing new games and activities, Principles of comprehensive and sustainable project planning, Using and developing sporting equipment, First principles of psychological first aid, Transferring knowledge of basic principles of psychosocial support, Supporting appropriate monitoring and evaluation of interventions. (source: SAD website, see link below)

The English version of the handbook will be the first released and distributed worldwide. It will be available in other languages (French, Spanish and Danish) shortly after. An online version is also planned.

For more information on SPAPSI, feel free to contact Katrin Koenen: [kkoenen@icsspe.org](mailto:kkoenen@icsspe.org)

Partners:

International Federation of Red Cross and Red Crescent Societies, Psychosocial Centre - <http://www.pscentre.org/library/training-materials/>

Swiss Academy for Development - <http://www.sad.ch/en/projects/235-spapsi-sport-and-physical-activities-as-psychosocial-interventions>

Technical University of Munich - <http://www.sportpaedagogik.sg.tum.de/index.php?id=1163>

More information:

Marianne Meier presentation (TUM, 2012):

[http://www.rotekreuz.at/fileadmin/user\\_upload/PDF/ENPS/AF2012/18\\_ENPS\\_AF\\_2012\\_Marianne\\_Meier\\_SPAPSI.pdf](http://www.rotekreuz.at/fileadmin/user_upload/PDF/ENPS/AF2012/18_ENPS_AF_2012_Marianne_Meier_SPAPSI.pdf)



## ICSSPE Adapts its Online Strategy

### Communication Strategy

ICSSPE to share news, events and announcements through its social media profiles.

For several years, ICSSPE has been publishing a monthly News magazine on its website (<http://icsspe.org/media/news-magazine>). This News magazine is also sent out to the people who subscribe online to the ICSSPE News (<http://icsspe.org/media/news>). The News magazine encompasses news articles (reports, interviews, analysis), announcements (job offers, scholarships, call for abstracts, etc...) and events (conferences, meetings, symposiums related to sport).

In parallel, ICSSPE uses the social media platforms to disseminate these pieces of information to its members and followers, along with other relevant topics from the world of sport science, physical activity and physical education. The focus is put on ICSSPE's three strategic priorities:

- Healthy Living Across the Lifespan
- Quality Physical Education (QPE)
- Ethics & Integrity

As of March 2014, the ICSSPE News Magazine has been increasingly supported by the social media channels thereby broadening the network's outreach. In addition, the social media channels make it possible to disseminate information regarding deadlines for submission, registration or application on a more instant basis. This information is available publically on the ICSSPE website through a "live feed" on the front page without having to register on the social media platforms. Descriptions of events (important dates, themes, location, etc...) remain to be available through the Events' Calendar on the ICSSPE website.

This adaptation allows ICSSPE to highlight even more important information provided by its members and/or partners while at the same time relaying useful reminders and news to all the followers, in a more flexible way. The News Magazine will continue to be released on a monthly basis.

You can subscribe to the ICSSPE page on Facebook: [www.facebook.com/icsspe](http://www.facebook.com/icsspe) and follow @ICSSPE on Twitter.

## Kari Fasting Receives "Fair Sports Act" Award

### Gender Equality and Human Rights in Sport

At Finland's Sports Gala on 15 January 2014, Professor Kari Fasting was awarded the "Fair Sports Act".

Kari Fasting received the prize in recognition of her many years of work and significant achievements in the field of gender equality and human rights in sport.

Kari, who has been working extensively with ICSSPE, has made equality for girls and women in sport the special focus of her successful career. The Norwegian is one of the founding members and former president of WomenSport International (WSI) as well as past president of the International Sociology of Sport Association (ISSA).

The award was presented to Kari Fasting by the former President of Finland, Tarja Halonen, who described her as “the world-wide leading expert in the field of gender equality and human rights in sport. Her work within the field of safety in sport has been remarkable, including topics such as sport against violence, sexual harassment and abuse.” The “Fair Sports Act” prize was awarded for the second time in 2014, and goes to a person or organisation who or which has made outstanding contributions to the advancement of equality, fair play, and integrity in sports.

Also invited to the Finnish Sports Gala was ICSSPE President Margaret Talbot: “I was delighted and honoured to see my long-time friend and colleague, Kari Fasting, receive this prestigious and richly-deserved Award. ICSSPE’s work is all underpinned by the values of equity and inclusion, so we appreciate the absolute need for sport and physical education to be safe for everyone – and especially for children, women and vulnerable adults. Kari’s work has helped to secure commitment to safeguarding from federations and governments. We salute her, and others working in this area.”

## **Margaret Talbot reports to Parliamentary Commission**

### **Policy Recommendations in Physical Activity**

ICSSPE President attends the All-Party Commission on Physical Activity at the Houses of Parliament in London, UK.

As part of the work which ICSSPE is doing to assist the “Designed To Move” campaign, ICSSPE President Margaret Talbot submitted written evidence to the All-Party Parliamentary Commission on Physical Activity. The Commission was established to develop policy recommendations in order to address the growing problem of physical inactivity in the United Kingdom. Margaret Talbot was then called to give oral evidence at the Commission’s session on Physical Activity – the Education Sector, on 29 January 2014, at the Houses of Parliament at Westminster. Her evidence on the vital importance of physical education in school curricula was supported by other professionals, who also reported on the positive impact of a whole-school approach to physical activity. The school system is the most comprehensive and sustainable infrastructure available for children to learn the skills, knowledge and confidence for life-long participation in sport and physical activity.

Paula Radcliffe, current women’s world record holder in the marathon with her time of 2:15:25 hours, reported on the importance of family life which encourages and supports children’s physical activity, whether competitive sport or any other type of physical activity. Other evidence was provided by community providers. Every contributor emphasised the crucial importance of positive early experiences, especially at school – and of the need to ensure educational opportunity along with the physical activities. Another recurrent theme, especially for those operating in inner cities, was the need for safe spaces, especially for children and women.

It is hoped that the evidence and conclusions from this Commission will feed into future government policy, with a general election scheduled for 2015.

To stay up-to-date on the All-Party Commission on Physical Activity, please use the website <http://activitycommission.com/>.

## Germany-China – Sharing Experience

### Bilateral Symposium on Winter Sports

Against the backdrop of the bilateral agreement on cooperation in sports between the Federal Ministry of the Interior (BMI) of the Federal Republic of Germany and the General Administration of Sports of the People's Republic of China (GASC), BMI and GASC have jointly organised symposia in 2009 (China), 2010 (Germany) and 2011 (China).

The continuation of this cooperation serves not only as an intensive collaboration in the area of sport, but as a basis for sustainable German-Chinese relations as a whole.

The three-day event was scheduled for 23 to 27 March 2014 in Berchtesgaden, one of the main regions in Germany for Winter Sport. The German delegation was led by Parliamentarian State Secretary of the BMI, Dr. Ole Schröder. Head of the Chinese delegation was Vice Minister of GASC, Mr. XIAO Tian, who is also Vice President of the Chinese Olympic Committee. Mr. Alfons Hörmann, President of the German Olympic Sports Confederation, was one of the honorary guests and one of the expert speakers.

Through the symposium the organisers intended to expand the exchange of knowledge and experience between ministries and experts of both countries, to benefit from research and practical experience of the partner country.

The Bilateral Symposium on Winter Sport will included the following topics:

- Main Features and Development of Winter Sport - Elite Sport and its Social Benefits
- Nordic Skiing - A Sport for All?
- The Risk of Physical and Psychological Stress Injuries in Winter Sports
- Development of Alpine Skiing in China and Germany
- Construction of Winter Sports Facilities - Challenges for Inclusive Design , Accessibility and Utilization
- Speed Skating - Training Means and Methods

Apart from the discussion around these topics, the symposium was meant to explore the potential for future joint-activities in different areas of sport, sport politics and sport science.

In addition to the theoretical discussion, visits of winter sports facilities in Berchtesgaden, Inzell and Ruhpolding were undertaken. These visits allowed the participants to gain insights in the construction of sports facilities in Germany and to compare these against their background of experiences and scientific investigations.

The scientific contributions of the symposium will be published in workshop proceedings which will be accessible on the ICSSPE website presumably by the end of 2014.

For further information, please contact Katrin Koenen at the ICSSPE office: [kkoenen@icsspe.org](mailto:kkoenen@icsspe.org)

## ICSSPE Members Will Gather in Finland

### ICSSPE General Assembly and Meetings

ICSSPE's 25th General Assembly will be held on 12 June 2014 at the Finlandia Hall in Helsinki, Finland. You will find below a welcoming word from Dr. Kari Keskinen, Executive Director of the Finnish Society of Sport Sciences and Chair of the ICSSPE Editorial Board.

Welcome to Finland

"We at the Finnish Society of Sport Sciences are extremely proud that ICSSPE has authorised us to host its statutory meetings in Helsinki this June. The ICSSPE Executive Board together with its sub-committees will have their meetings on 9-11 June at the Finnish Sports Museum which is located at the historic 1952 Olympic Stadium. The ICSSPE General Assembly will be on June 12th at the most prestigious Finlandia Hall which is also the venue for the IWG 2014 Conference just following the ICSSPE meetings. All events will be ideally located within walking distance from the Scandic Park Hotel which will accommodate our international guests.

Sport Science is a challenge, not only for sport scientists, but also to a great number of administrators and decision makers in International Associations around the world. Organising these meetings aims primarily at serving our colleagues and friends. We do this gladly and it is in this spirit that we extend our warmest welcome to you. It is our pleasant duty and responsibility to try to make your stay with us enjoyable and profitable both professionally and socially. Your help and co-operation are needed in realising both of these aspects. We are convinced that you all come here with your best professional spirit and knowledge so we can learn of the great progress in Sport Science. Be also prepared to come here fresh and well-charged: long days and short nights demand special professional and social energy. "

Dr. Kari L. Keskinen

[kari.keskinen@lts.fi](mailto:kari.keskinen@lts.fi)

For more information about ICSSPE's meetings and General Assembly, please contact Ms. Andrea Blume at the ICSSPE office: [ablume@icsspe.org](mailto:ablume@icsspe.org)

## Communities & Crisis 2014

### ICSSPE Seminar

ICSSPE hosts the 7th edition of the "Communities and Crisis – Inclusive Development through Sport" Seminar from 22 until 28 October 2014.

To ensure the success of Sport-for-Development programmes, implementers must possess substantial thematic and cultural knowledge as well as relevant didactic skills. The training package of the 7th edition of the seminar enables participants to deliver psycho-social support programmes in social problem and crisis areas, conveying both theoretical knowledge and practical skills.

International experts from the fields of sociology, psychology, social work and physical activity/education will deliver this hands-on training programme, which is aimed primarily at first-line service providers and graduate students with various disciplinary backgrounds from around the world. The seminar offers not only

theoretical and practical learning sessions, but also aims at fostering exchange of ideas and good practice examples between participants and speakers. All sessions will be held in English.

The seminar takes place at Haus Rheinsberg Hotel am See, in Rheinsberg, Germany.

The seminar is held under the leadership of the International Council of Sport Science and Physical Education (ICCSPE) and is supported by Kennesaw State University (USA) and Katholieke Universiteit Leuven (Belgium).

Further information regarding registration and a detailed programme will soon be made available through the ICCSPE website.

For any questions please contact Katrin Koenen ([kkoenen@icsspe.org](mailto:kkoenen@icsspe.org)).

## **International Network Meets in Ghana**

### **Sport for Development**

The 2nd working group meeting of the International Scientific Network for Sport for Development was hosted by the University of Ghana from 6 until 9 April 2014.

Supported and financed by the German International Cooperation (GIZ), the members convened to discuss the results of a mapping study regarding education and training curricula and manuals for persons working in Sport for Development.

On the day of the opening of the workshop various organisations and key players such as Right To Play of Ghana, the Ghanaian Ministry of Youth and Sports, the National Sports Authority as well as members of the Sports Committee and the Advisory Board of the University of Ghana attended. Speaking at the event the Executive Director of ICCSPE Detlef Dumon accentuated that “the emergence of the network and its activities throughout the lead-up to this workshop reflect a strong demand for analysing how future implementers are being prepared for their work and a commitment with regard to implementing joint projects on a level playing field.”

The overall aim of this partnership initiative is to develop a global and multi-disciplinary network of academic organisations and NGOs for the purpose of contributing continuously to the advancement of sport for development projects, programmes and policies.

Working towards a collection and analysis of existing qualification standards, the Network aims at developing an International Framework for Sport for Development Leaders for the purposes of advocacy, policy development, education and training, as well as implementation and evaluation.

The founding members of the Network are the International Council of Sport Science and Physical Education, the German Sport University Cologne, the University of the Western Cape, the Organisation of Rural Primary Education Developers, the Breakthrough Chiparamba Sports Academy and the University of Ghana.

## IOC Appoints Experts to Commissions

### ICSSPE in Olympic Family

ICSSPE welcomes the IOC's decision to appoint Margaret Talbot as Expert to the IOC Culture and Olympic Education Commission.

The ICSSPE President considers "it an honour, I think both for me and for ICSSPE" and she looks forward to "working with the IOC Development team, hoping to be able to facilitate links and share work with Paralympic education, and with mainstream education systems."

In addition Vice President Wolfgang Baumann has been re-appointed as an Expert to the Sport for All Commission, while former President Gudrun Doll-Tepner has been re-appointed to the Women and Sport Commission.

Wolfgang Baumann welcomes the appointment saying that "Grassroots sport and Sport for All continue to receive appropriate attention within the Olympic family" and that "this can be considered an expression of accepting grassroots sport and Sport for All as important aspects of the Olympic legacy."

Further information can be obtained from:

<http://www.olympic.org/news>

## Exploring Physical Activity and Academic Performance

### Move and Improve?

ICSSPE holds a symposium named "A Neuroscientific Rationale for Physical Activity and Exercise as Means of enhancing Academic Performance" from 25 until 28 September 2014.

While recent years have seen remarkable advances in understanding the relationship between physical activity and academic performance, relatively little work that has been done in this context, has been conducted across disciplines. Questions posed by researchers, policymakers, curriculum developers, teachers and other professionals, of how to use physical activity and to design efficient programmes for educational contexts remain unanswered and require further research and interdisciplinary collaboration.

Against this backdrop ICSSPE organises a symposium in Berlin, Germany, with experts from sport science and in particular neuroscience in order to share findings and develop an agenda for initiating research activities and implementation schemes. Moreover representatives from sport pedagogy, sport policy, as well as the education and health sectors, are expected to contribute to the debate.

While emphasising discussion and exchange on knowledge and research, the event is aimed at providing new perspectives for practice-oriented and applied models and innovations including background data and recommendations for policymakers, practitioners, teachers and coaches.

Further information regarding the details of the programme will soon be made available through the ICSSPE website.

For any questions please contact Ben Weinberg ([bweinberg@icsspe.org](mailto:bweinberg@icsspe.org)).

## **Preparing for Leadership in Sport**

### **Paths to Success**

The 3rd edition of the seminar 'Paths to Success: Inspiring Future Leaders in Sport' takes place from 14 until 16 November 2014 in Berlin, Germany.

The seminar is designed to provide young women and men with valuable skills and tools as a basis for becoming potential future leaders in national and international bodies in the fields of sport, sport science and physical education. The central theme of the seminar is concerned with project management including various aspects of communication and leadership styles. The programme therefore includes training sessions on fundamentals of leadership, stakeholder management, teamwork, presentation skills and communication methods. Expertise is ensured through high rank workshop facilitators and presenters.

The German Olympic Sports Confederation (DOSB) and ICSSPE jointly host the seminar, which is funded by the Federal Ministry of the Interior of Germany. It will be held at the 'Hotel Seminaris', Campus Hotel Berlin, Takustrasse 39, 14195, Berlin, Germany.

Further information regarding the registration procedure as well as the programme will soon be provided through the ICSSPE website.

## **Detlef Dumon on the Upcoming General Assembly**

### **Inside ICSSPE**

The ICSSPE Executive Director provides insights into the importance of the Helsinki meetings and the strategic outline for the next few years.

ICSSPE News: Detlef, please explain the general significance of the ICSSPE General Assembly and board meetings, and if possible portray milestones and achievements throughout the last few years.

Dumon: The General Assembly is the organ of ICSSPE where members take decisions which will define the work of the entire organisation for the next two years. The delegates of this meeting will take stock of what has been achieved over the past two years and will take decisions that will direct the work of the organisation for the upcoming biennium with regard to several aspects: The working programme which was developed by the members of the Associations' Board will be discussed and adopted as well as the budget of the organisation for the next two years. These two agenda items and the change of the funding scheme for our members' activities are of high interest for everybody.

The organisations' agenda for the past years has been very diverse. A strong focus was put on benefits of physical activity for health which is one of ICSSPE's priorities. To a large extent this was linked with the global Designed to Move initiative which is supported by a broad range of ICSSPE members. Based on the final draft of global benchmarks for physical education, ICSSPE members were also involved in the development of Quality Physical Education Guidelines for Policy-Makers, an initiative by UNESCO. In addition, the entire research, policy and training activities in sport for development have taken a big step forward towards more professionalisation with strong support by ICSSPE members. And of course, a major focus of the ICSSPE Network lied upon the organisation of MINEPS V and the development of the content for this

ministerial meeting and for its final declaration. More than fifty member organisations and individuals of ICSSPE were involved in the process over a period of almost a year.

ICSSPE News: How does the General Assembly reflect the idea of ICSSPE to foster cross-sectoral and interdisciplinary collaboration and what are the strategic and operative challenges in this context?

Dumon: ICSSPE cannot replace the work of its member organisations. Instead, the Network deals with those issues that can be addressed more sufficiently jointly, from different professional and scientific perspectives. Take the issue of the MINEPS V theme Preserving the Integrity of Sport. A theme like this is too complex to be addressed separately and requires cooperating with the sport movement, law enforcement authorities, researchers specialised in ethics, sports law, sport economy, sports medicine, and with coaches or the entourage of athletes. Therefore you need a joint approach. This is where the ICSSPE Network consisting of governmental authorities, researchers, coaches and teachers offers a unique platform with a tremendous potential.

ICSSPE News: Is there an overarching theme or topic for the upcoming meetings in Helsinki? And which other pressing issues have to be taken into consideration bearing in mind sport-political challenges, which have been addressed for instance in the follow-up to MINEPS V?

Dumon: Good governance, integrity, participation and health for example remain or have recently become buzzwords in many regions. So it would be fairly easy to identify an overarching theme which allows many of our members to identify with. But only, if you turn this theme into practice, into jointly adopted outputs you will find out whether the members are identifying with the decision and take initiatives. It is a balancing act the Associations' and the Executive Board have to perform - being inclusive and goal-oriented at the same time. In general, ICSSPE has to react to the great demand for improved infrastructure and capacity building which was expressed by many representatives of UNESCO member states and professional organisations. The demand goes beyond providing training opportunities for coaches and physical educators; it also includes assistance for policymakers in public administrations and professional organisations that are dealing with policy, curriculum and structural developments.

ICSSPE News: Which direction should ICSSPE and its Network and members envisage for the next future? What could or should a possible working programme look like for the next couple of years?

Dumon: ICSSPE operates according to its working principles Science, Service and Advocacy. This means the Network will continue to support research institutions within disciplines across regions; it will continue to provide service for its membership and for external partners; and will advocate for the positive values of sport and physical education to governments and agencies. Current research activities expand across many scientific disciplines. At the same time we have to ensure that the results are made available to everyone. This can be accomplished by a close cooperation of experts in research, coaching and teaching, in policy development and advocacy activities.

## **Margaret Talbot to Hold UNESCO Chair**

### **Inclusion in Sport and Physical Education**

The Institute of Technology Tralee (Ireland) and UNESCO have announced the appointment of Margaret Talbot as new UNESCO Chairholder.



Under consideration of the ICSSPE President's long lasting experience as a researcher and advocate with regards to matters of equity and inclusion in sport and physical education, Margaret's mandate will include working together with various stakeholders and partners in order to advance the goals of the UNESCO Chair.

As Chairholder Margaret will seek to promote education, training and research for the sake of developing more inclusive and equal societies specifically with regard to and through physical education, sport, fitness and recreation. Themes and challenges the activities of the Chair address encompass healthy and active aging, inclusion and wellbeing. The projects implemented in Tralee extend across various disciplines such as education and training, adapted physical activity, social sciences, social entrepreneurship, pedagogy, assistive technologies, ICT, as well as policy and development work.

Following her appointment Margaret stated "It is rare that a UN agency and a higher education institute collaborate to establish a Chair and research team, to support research and development for the benefit of people with impairments. This opportunity is exciting and unique, and I am looking forward to meeting the talented team at Tralee, so that we may work together on an agenda, which will certainly require partnerships with other institutes and many international NGOs in the area of sport, physical activity and physical education. This work has great synergy with my roles as ICSSPE President and as Chair of the IPC Education Committee and I hope to develop these relationships to mutual benefit."

In relation to the announcement, Sir Philip Craven, President of the International Paralympic Committee, expressed that "IPC welcomes the establishment of the UNESCO Chair Position Transforming the Lives of People with Disabilities, their Families and Communities, through Physical Education, Sport, Recreation and Fitness".

The fact that Margaret has been appointed as UNESCO Chairholder underlines her credentials and expertise and complements her roles as Chair of the Education Committee of the International Paralympic Committee, and as Expert to the International Olympic Committee Commission on Culture and Education. Moreover it recognises the work ICSSPE has done within the last decades with regard to putting matters of inclusion, equity and diversity on the academic as well as sport-political agenda. In her function at IT Tralee Margaret will contribute to the advancement of these efforts.

Further information regarding the agreement can be obtained from <http://www.ittralee.ie/en/Information>.

In addition, check out a previous interview ICSSPE conducted with Catherine Carty, the Chair's Project Manager: <http://www.icsspe.org/content/catherine-carty-favour-more-inclusive-society>.

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Issue No. 66 of ICSSPE's Bulletin provides a Special Feature called "Perspectives on Front Line Care for Mild Traumatic Brain Injury in Sport (MTBI)". The section contains a selected collection of position statements, policies and guidelines as well as articles relating to the pressing need of how to prevent, treat and deal with brain injuries and concussions in sport. The Special Feature was designed, compiled and reviewed by Carl Cramer (Barry University, USA), who has taught, researched and served in the field of athletic training for more than thirty-five year and who has served the profession in many leadership capacities involving accreditation of entry-level athletic training education.

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