

SPORTS TALK

Journal of the ACA Sport Council



Concussion and the Constantly Changing Landscape

While concussion continues to make headlines in the local and national news the political, professional, and scientific landscapes are constantly evolving. As a political and educational organization we work hard to keep our membership informed of important happenings in both arenas. The following are great examples of both in regards to concussion or mild traumatic brain injury (mTBI).

Michael Lord, DC, CCSP
ACASC Secretary , Sports Talk Editor

New Jersey Board of Chiropractic Examiners and a Chiropractors Ability to Assess, Diagnose and Determine Return to Play

Len Ershow, DC, DACBSP

At the end of 2012 an official request was put to the New Jersey Board of Chiropractic Examiners. They were asked to comment on the ability of a chiropractor to evaluate, diagnose and give return to play (as well as return to ADL) guidelines to athletes and individuals with mild Traumatic Brain Injuries (mTBI) or Concussions. This was considered an important issue, since other states have legislatively challenged or struck down a chiropractor's ability to assess these patients and guide them back to full activity.

The Association of New Jersey Chiropractors Council on Sports Injuries and Rehabilitation (ANJCCSIR) began to define their position on this topic. Their objective was to inform the NJBCE of the qualifications chiropractors had to assess such injuries. I was asked as an active member and past president of the sports council to represent the ANJCCSIR at the NJBCE along with the ANJC legislative liaison Dr. Steve Clarke.

The ACA SC also contributed to the formulation of the ANJCCSIR position statement by suggesting some bullet points and then the executive committee developed a formal letter which was signed by our president, Dr. Sherri LaShomb and sent to the ANJCCSIR. This letter was also formally presented to the Assistant Attorney General assigned to the NJBCE at their monthly meeting on March 28, 2013.

Letter from ACASC to ANJC

Dear Dr. Stewart,

It has come to the attention of the ACA Council of Sports Injuries and Physical Fitness (ACASC) that the New Jersey Chiropractic Board of Examiners is considering their position on the appropriateness of chiropractors to assess, diagnose, treat and prescribe return to play protocols for patients who have sustained a mild traumatic brain injury (mTBI) or concussion.

Chiropractic education includes several semesters/quarters/trimesters of anatomy, physiology, neurology, pathology, orthopedics and diagnostics. Given this education, the graduating chiropractic physician has the essential tools to evaluate these patients.

Furthermore, practicing DCs who acquire additional education in sports injury assessment are even more qualified to manage patients with mTBI. There are a variety of post graduate programs a chiropractor can complete, such as the Masters Program in Sports Science and Rehabilitation, which is offered at several chiropractic educational institutions. The American Chiropractic Board of Sports Physicians (ACBSP) has certified thousands of chiropractors with the Certified Chiropractic Sports Physician (C.C.S.P. ®) and the Diplomate in the American Chiropractic Board of Sports Physicians (D.A.C.B.S.P.®) degrees. The International Federation of Sports Chiropractors (FICS) also offers an international certification, the International Chiropractic

Sports Science Diploma (ICSSD®). All of these post doctoral programs have a strong core education in head injury assessment and management, offering the most current standards and information available.

In addition, the ACBSP now offers a Concussion Registry for all health care practitioners. The Center for Disease Control (CDC) offers an educational online program on concussion. There are many other programs available for all health care practitioners to maintain their education in the current standard for mTBI/concussion diagnosis and management.

One of the most critical points to consider is that the chiropractor will often be the first health care practitioner that patients with mTBI/concussion will consult with.

Patients will present to the chiropractor's office with a myriad of mTBI related symptoms, including headache, neck pain, ringing in the ears, disorientation, dizziness, and behavioral changes. Proper and early diagnosis, as well as appropriate referrals and management, can assist patients with the best possible outcome. Chiropractors are trained to provide these services.

Another important point to consider is that chiropractors are often the only health care practitioner at many sporting events, where concussions most often occur, especially in our youth population. Time is of the essence in the initial evaluation and monitoring of the progression of symptoms.

Chiropractors are equally as trained as other doctors to manage these athletes and patients properly.

While sending these patients to a medical provider or to the emergency room may be an option, this may not be the most effective and timely option for mTBI. The emergency room may not be easily accessible due to distance from the sports venue, EMS may not respond in a timely manner, or there may not be an adult to transport the athlete. Finally, there have been cases where the emergency room healthcare personnel or primary care physician have not appropriately diagnosed an mTBI. We agree it is critical to have an on-site health care provider at every sporting event, which should include the option of a chiropractor.

While chiropractors have a strong educational background and are well prepared to act as highly effective providers for the diagnosis and management of this injury, we strongly recommend that ALL health care practitioners be vigilant in updating their knowledge on mTBI/concussion on a regular basis, since the information available continues to evolve.

We emphatically support you and your state organizations efforts. Please feel free to contact me should there be more we can do to support your efforts.

Sincerely,

Sherri L. LaShomb, DC, CCSP,
ATC, ICSSD

ACASC President

The NJBCE were unanimous in their support of qualified chiropractors being able to assess, diagnose, treat or refer appropriately and determine RTP guidelines for patients who had suffered head injuries consistent with mTBI/concussion. They found this to be consistent with a recent bill signed by Governor Christie about student athletes in 2010 which states :

.18A:40–41.4 Removal of student athlete from competition, practice; return.

4. A student who participates in an interscholastic sports program and who sustains or is suspected of having sustained a concussion or other head injury while engaged in a sports competition or practice shall be immediately removed from the sports competition or practice. A student-athlete who is removed from competition or practice shall not participate in further sports activity **until he is evaluated by a physician or other licensed healthcare provider trained in the evaluation and management of concussions, and receives written clearance from a physician trained in the evaluation and management of concussions to return to competition or practice.**

Since chiropractors in the State of New Jersey are by legislative definition considered Physicians, the NJBCE agreed that any chiropractor who had attained a CCSP or DACBSP or who had attained additional training sufficient to qualify them to assess concussion were within the scope of practice to do so in NJ.

This was a great affirmation for our profession and how the ACASC works to protect your scope of practice.

Review of the Consensus statement on concussion in sport: the 4th International Conference on Concussion in Sport held in Zurich, November 2012

By: Damir Simunac and Anthony Gurule

Palmer College of Chiropractic West Campus Sports Council

In November of 2012 the 4th International Conference on Concussion in Sports was held in Zurich. This conference is part of an ongoing campaign, striving for evidence based research and knowledge, along with clinical support, overlapping with educational emphasis on the severity of concussions in sports. This Consensus statement elaborates and updates the previous recommendations for concussions following the 1st (Vienna 2001), 2nd (Prague 2004), and 3rd (Zurich 2008) International Consensus Conferences on Concussions in Sports.

It has been noted and agreed upon that the evolution of the knowledge and science of concussion is continuous. As a result, the 2012 Zurich Conference was based on building on previous principles outlined in previous documents, with again, the understanding that not everything that is presented is definitive and that further research is needed. Having said that the Committee has intended to meet again in 2016 to further converse and update any new methods or data that have been studied.

The Consensus statement on concussions in sports at the 4th International Conference follows a very similar structure to previous documents, although currently presented in more of a dialogue format proves to make for a definitive and comprehensible read for populations outside those of mainstream health care or research. As described later in the consensus there is a strong emphasis on the necessity of knowledge transfer between all individuals involved in sports, including those of the parents, teachers, and coaches.

This definition of a concussion has not significantly changed from previous consensus documents. Additions to the definition included emphasizing that although, the rapid onset of short-lived impairments of neurological functions resolves spontaneously, in some cases symptoms and signs may evolve over a number of minutes to hours. Knowing the signs and symptoms of a concussion is crucial for the management of care for the injured athlete, and even though at first the symptoms may not seem to be severe it must be understood that these symptoms may not present themselves until minutes or hours after the injury occurred.

The importance of recognizing signs and symptoms is nothing novel to the discussion of concussion in sports. These in synchrony with the 3rd International Conference, included: symptoms such as somatic, cognitive, and emotional; physical signs such as Loss of Consciousness (LOC); behavioral changes; cognitive impairment; and sleep disturbances, which has now been described as insomnia rather than drowsiness.

One of the big questions for concussion is how to properly diagnose the injury? This is difficult to definitively conclude, as a concussion is an evolving injury. Having said that, the previous SCAT2 form has been updated and now referred to the SCAT3 as well as a new developed Child SCAT3 evaluation (ages 5-12).

One of the most significant changes between the 3rd Zurich Conference and the 4th Conference is that the panel has concurred that no player after having a concussion should be allowed to return to play the same day. In the 2008 consensus the panel had agreed that some adults, in their example NFL football players, were considered to be allowed to return the play the same day of the injury pending the severity of the concussion. This has since been revoked from the discussion and updated in this 2012 consensus. Also, the actual testing has changed, for example, there is now a recommended tandem gait test, as well as finger to nose testing, with timed trials. It must also be distinguished that the panel understood the final determination regarding diagnosis and/or fitness to play is one that must be determined on the basis of medical decisions based on experience clinical judgment.

The understanding of the significance of neuropsychological evaluation is currently still an essential part of concussion evaluations. The current consensus has been updated from previous years stating that these cognitive functional testing, used for diagnosis, should be performed by a trained neuropsychologist who has an understanding and are sensitive subtle deficits that may present past acute episodes. It was also recommended that all athletes should have a neurological assessment as part of their overall management. This only further

elaborates the importance of neuropsychological testing, as well as the variable times frames to which these signs, symptoms, and cognitive deficits, may present themselves. Again proving the importance of understanding that concussions are an evolving injury in the acute stages.

The investigation of concussions has not changed much since the previous consensus statement in 2008. Authors have included a brief summary on the importance of adding postural stability testing as a useful tool for objectively assessing the motor field of neurological functioning. Although the overall evidence is insufficient, it should still be noted that chemical serum and cerebral spinal fluid biomarkers for brain injuries could still be used in the management of concussions.

Dr. Gary Small and colleagues have reported in the American Journal of Geriatric Psychiatry in February of 2013, that retired football players showed a significant amount of increased of tau tangle and amyloid plaque depositions when compared to control subjects of similar age and health status. The team developed a novel approach/method to using PET scans to measure these outcomes, outlining the cellular affects that can occur with players that have suffered concussion years before, as well as the importance psychological changes depending on where the plaques were deposited.

Continued on page 14

Announcing the ACASC and Marc Pro Affinity relationship

Marc Pro Option for members of the ACASC and the ACA:

The ACA Sports Council has formed an Affinity relationship with the Marc Pro Company that has incredible benefits for our membership and a potential for being a great financial resource for the ACA Sports Council.

This benefit applies to all members of the ACA SC and the ACA. Marc Pro normally will offer an automatic introductory off of 5% discount on the Marc Pro unit. The price with this discount is

\$617.00. However, all qualified members of the ACASC and ACA who decide to join the affiliate program will have the opportunity to buy their first 2 Marc Pro unit for \$395.00 per unit. That is an amazing savings. They do this so that the DC can use one unit for themselves, so they can experience the amazing effect and they can also use the second unit for their patients to take home and experience their ability to recover from a hard workout or experience the dramatic “anti inflammatory” properties (see the “Anti-inflammatory” article).

If the member DC decides to become an affiliate with Marc Pro and continues to sell units for use by their patients, athletes or for their office, they will receive \$100.00 from Marc Pro per unit sold. In addition, Marc Pro will donate \$100.00 to the ACA Sports Council.

To take advantage of this great opportunity, the member DC will have to contact our 1st Vice President, Dr. Kelly Lange for confirmation of membership as an ACA SC member. If the DC is not an ACA SC member, then they will have to be confirmed as an ACA member. At that time they will be put into contact with Marc Pro to become an affiliate and a unique code will be assigned to them for use on future purchases by the DC or their patients on the Marc Pro website.

The Marc Pro Advantage – speed recovery while improving performance!



The Marc Pro electrical stimulation device utilizes patented technology to effectively speed the recovery process after strenuous activity and condition muscles

to enhance future performance. Four easy to use electrodes deliver a comfortable stimulus to the targeted areas improving the transport of nourishment and waste and speeding recovery.

The basis for post exercise recovery is the normalization of tissue through the movement of nourishment and waste. Marc Pro is specifically designed and excels at this particular task. The Marc Pro muscle conditioning device creates unique, strong, but completely non-fatiguing muscle contractions that set off a cascading series of physiologic events. We call this a Muscle Activated Recovery Cascade, or “MARC™” for short.

The process begins with the activation of Nitric Oxide (NO), which dilates blood vessels and leads to increased flow delivering more oxygenated blood and nutrients to the area. The lymphatic and venous systems also require and benefit from localized muscle activity. Because of this, using the Marc Pro after physical activity helps move the related waste and deoxygenated blood away from the fatigued area(s). This exchange of nourishment and waste, without stress or fatigue, accelerates the recovery of the muscle.

Recover Faster...

- Reduce muscle fatigue or soreness
- Get back to training or playing sooner
- Train or play more often
- Less likely to quite or postpone exercise programs

Recover Fully Without Yesterday's Fatigue You Will...

- Maintain proper biomechanics
- Perform better
- Lessen the likelihood of injury

Maximize Training Results During resistance exercise you break muscles down; the strengthening and improvement happens afterwards during the recovery/remodeling process.

- If you improve the recovery process you get more gains from the resistance training that you are already doing

Help Prevent Injury From pro athletes, to recreational athletes to urban athletes (computer work, etc) over-use causes the majority of injuries

- Over-used is really the same as under-recovered
- If you can't or don't want to do less then you need to recover more to help prevent over-use injury

The Marc Pro does more than accelerate the recovery process. When used on a consistent basis, the Marc Pro actually improves overall muscle performance in two ways:

- First, decreasing the down time between workouts and being more fully recovered for your next workout allows you to accelerate

muscle development through a disciplined training program.

- Second, when the same Muscle Activated Recovery Cascade (Nitric Oxide, vascular dilatation, more oxygenated blood and nourishment) takes place on a regular basis, the result demonstrated in our research is the development of new blood vessels (capillaries) – a process known as angiogenesis. More capillary blood vessels in a muscle equals more oxygenated blood and related supplies in the muscle and more deoxygenated blood and waste out of the muscle. By increasing the overall throughput of nourishment and waste to and from the muscle through angiogenesis, **the muscle** has an increased capacity to do more work – it performs better.

A published research study showed a 200% increase in limb blood flow after the first application of Marc Pro technology. After a three week period of using Marc Pro five days per week, limb blood flow had increased by 247% upon application. This additional increase or reserve was possible because the consistent use resulted in new additional vessels in the area (angiogenesis) giving more capacity to the region. Another recent published study concluded that performing the same exercise program with Marc Pro stimulation to the exercised muscles during recovery appears to produce significantly greater gains in muscle strength and significantly greater reductions in feelings of muscle fatigue.

<http://marcpro.com/mp/wp-content/uploads/2011/10/Marc-Pro-study-mechanisms-JEP-Oct-2011.pdf>

“Anti” Inflammatory

Seriously ... do you honestly believe that your body's natural inflammatory process is a mistake?

Gary Reinl, Nicholas DiNubile, MD, Leonard Smith, MD, Casey Reinl, JD, MPS, Crystal Reinl, JD*

If your goal is to facilitate muscle recovery, think twice before you take an anti-inflammatory drug or strap on a freezing cold bag of ice. A recent study published in the Federation of American Societies for Experimental Biology journal suggests that muscle inflammation is essential for repair. The facts are basic and easy to understand: “drugs” and “ice” slow the recovery process at best, and at worst, prevent it!

The research noted above adds to a growing list of highly-credible peer-reviewed reports that have led many professional and world-class athletes to reject the “quick fix” allure promoted by drug “dealers” and ice “gurus” (both over-the-counter and prescription) and embrace the reality that inflammation is not only desirable, it is essential for optimal recovery!

Further, informed athletes are clearly aware that “inflammation” is not why their muscles feel “tired” and/or “sore,” and more importantly, that the best way to assuage those feelings is a muscle activation technique known as “active recovery,” not by mindlessly popping pills or literally chillin’ out on the couch.

What’s the best muscle activation technique? Theoretically, do whatever you did to get tired and/or sore, but with less intensity. If you played a tennis match and your right shoulder and forearm are tired and/or sore, volley with a friend for 30 minutes or so using only your right hand; if you played a round of golf and your lower back is tired and/or sore, go to the driving range and soft-hit a couple buckets of balls; if you ran a marathon and your thighs are tired and/or sore, jog a mile or two; if you completed a 50-mile bike race through the mountains and your glutes are tired and/or sore, go for a shorter, easier bike ride; if you “over-did-it” in the weight room and your biceps are tired and/or sore, go back to the gym and “under -do-it;” if you worked in the garden all morning pulling big weeds and your hands are tired and/or sore, try pulling some small weeds, etcetera! The point is that it does not matter what caused your muscles to get tired and/or sore. The theoretical best way to facilitate recovery is to activate the involved muscles by “lightly” doing what initially caused you to get tired and/or sore without causing any additional muscle fatigue or soreness.

However, that “theoretical” stuff rarely aligns with reality. Besides, who wants to volley with a friend, hit a couple buckets of balls, jog, ride a bike, go back to the gym, or pull more weeds when their brain says “you’re finished, now rest!”

So what’s truly the best, simplest, most practical, and least stressful way to facilitate muscle recovery? That’s easy. Activate your tired and/or sore muscles using a scientifically validated, FDA cleared, non-fatiguing, rhythmic, slow- pulsed muscle-recovery device.

For related research, see: <http://faculty.css.edu/tboone2/asep/JEPonlineOctober2011Blum.pdf>.

Inflammation, NSAID's & Healing

For various reasons, almost everyone believes that they need to prevent or, at the least, limit inflammation related to tissue damage. It doesn't seem to matter to those with such beliefs that inflammation is phase one of a three-phase, life- saving response to injury or that without it, normal healing is impossible.

“Overwhelmingly, this review demonstrates that NSAIDs inhibit or delay fracture healing.”

[Pharmaceuticals, Vol 3, No 5, 2010: Effect of Non-Steroidal Anti-Inflammatory Drugs on Bone Healing, by Jessica Cottrell, and J. Patrick O'Connor]

But what do the experts say? Is it okay to significantly modify or skip the inflammatory phase of the healing process? What are the facts related to this topic?

Although there are many viable answers to these questions from a wide variety of sources, here are two concise, well-referenced explanations that are consistent with related clinical textbooks and other published evidenced-based material: **[continued on page 10]**



ACA SPORTS SYMPOSIUM 2013

New York /New Jersey Metropolitan Area

Friday Sept. 27th - Sunday Sept. 29th, 2013

@ Meadowlands Sheraton Hotel

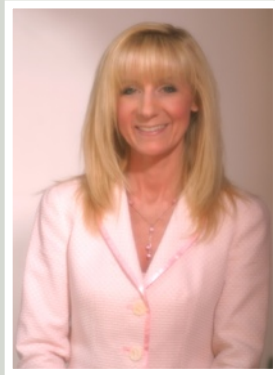


SAVE THE DATE

Presidents Message

Dear ACASC members,

We are excited to offer you another issue of Sports Talk. Your Executive Committee (ExCo) has been very busy since our last communication.



We have been working diligently on your behalf. We have had representatives at the ACA's National Chiropractic Legislative Conference (NCLC) in Washington, DC; the Joint Commission of Sports Medicine and Science (JCSMS) in Mobile, AL; the National Athletic Trainers Association's (NATA) Youth Sports Safety Alliance, in Washington, DC and the International Federation of Sports Chiropractors (FICS) Annual General Meeting in Durban, South Africa. I was also privileged to attend the FICS National Chiropractic Sports Councils President's meeting in Durban, South Africa and gave a presentation to the Student Sports Council at the University of Bridgeport, both via Skype.

In the very near future, we have ExCo members attending the American Chiropractic Board of Sports Physicians (ACBSP) Symposium, the Rehab Council's Annual Conference, and the Federation of Chiropractic Licensing Board's Annual Meeting.

And very importantly, we are addressing the increasingly pressing issue of a chiropractor's ability to assess and manage

patients who have sustained a mild traumatic brain injury (mTBI)/concussion. We sent a letter of support to the ANJSC (Association of New Jersey Sports Chiropractors) for their presentation to the New Jersey Board of Chiropractic Examiners. The NJBCE decided favorably to allow chiropractors to assess and treat for this condition. We are currently formulating our own position paper on this subject and will continue to explore ways to guarantee that chiropractors maintain the ability to assess and treat our patients who suffer concussions.

Please continue to watch our web site, and your emails for our eblasts, for updated information on our 2013 Symposium, our membership drive (you could earn a free 2013 Symposium registration!), events to work, and sports injury information from sources such as the NATA and JCSMS.

We are especially excited to announce that we will be offering the FICS International Chiropractic Sports Science Diploma (ICSSD) conversion program at the Symposium in the Meadowlands. (See more info later in Sports Talk). And for the first time in many years, we will be inducting a member of our organization into the ACASC Hall of Fame. Please join us for a black tie (optional) dinner to celebrate the occasion at the Sheraton Meadowlands on Saturday, September 28th. We look forward to seeing you there!

We welcome your feedback and continued participation in our organization. Please feel free to contact me with your questions or comments at president@acasc.org.

Until next quarter,
Sherri LaShomb, DC, CCSP, ATC, ICSSD
ACASC President

“A major rationale for using NSAIDs in the treatment of musculoskeletal injuries has been their anti-inflammatory quality. The prevailing argument is that healthy tissue is not inflamed; therefore, if we stop the inflammation in an injured tissue, the tissue will be healthy. The problem with this viewpoint is that, in addition to being a sign of injury, inflammation is a necessary component of the healing process. As noted by Leadbetter ‘inflammation can occur without healing, but healing cannot occur without inflammation.’

Whether the injured tissue is a ligament, tendon, or muscle, the body responds to injury with a sequence of events that begins with an influx of inflammatory cells and blood. The inflammatory cells remove debris and recruit cytokines and other growth factors toward the injury site. This inflammatory phase is partly mediated by the same prostaglandins that are blocked by NSAIDs. In a healthy healing process, a proliferative phase consisting of a mixture of inflammatory cells and fibroblasts naturally follows the inflammatory phase. The fibroblasts build a new extracellular matrix and persist into the final phase of repair, the maturation phase, where, if all goes well, functional tissue is laid down. The key point is that each phase of repair is necessary for the subsequent phase.”

[The Physician and Sportsmedicine: Volume 31: No.1 January 16, 2003 NSAIDs and Musculoskeletal Treatment What Is the Clinical Evidence? Steven D. Stovitz, MD; Robert J. Johnson, MD]

“NSAID use probably should be avoided by patients during fracture healing.”

[J Bone Joint Surgery, Vol 89, 2007: Dose and time-dependent effects of cyclooxygenase-2 inhibition of fracture healing, by AM Simon, and JP O'Connor] Retrieved from the Arthritis Foundation

“Healing, the tissue response that can restore tissue structure and function after injury, results from a complex, interrelated series of cellular, humoral, and vascular events. Tissue damage and hemorrhage caused by injury or surgery initiate a response that includes inflammation (the cellular and vascular response to injury), repair (the replacement of necrotic or damaged tissue by new cells and matrix), and remodeling (the reshaping and reorganizing of repair tissue). This continuous sequence of events begins with the release of inflammatory mediators and ends when remodeling of the repair tissue reaches a homeostatic state.”

[Journal of American Academy of Orthopedic Surgeons, Vol 7, No 5, September/October 1999: Loading of Healing Bone, Fibrous Tissue, and Muscle: Implications for Orthopedic Practice, by Joseph A. Buckwalter, MS, MD, and Alan J. Grodzinsky, PhD]

What about Swelling?

Swelling is good thing ... not a bad thing. It is a necessary and fundamental component of phase one of the healing process. Additionally, and, contrary to popular belief, the amount of fluid sent to the damaged area is not an arbitrary or chaotic event. Instead, it is a vigilantly regulated process designed to help the body regain a homeostatic state; a process that ultimately depends on the lymphatic system to move the fluid and other waste away from the damaged area and back into general circulation (see next page for details).

Granted, sometimes trapped “waste” triggers the inflammatory response (which sends more fluid to the damaged area). But, generally, it’s not because there is too much swelling ... it’s because there is too little lymphatic drainage. This issue is best settled by evacuating the waste, not stifling the healing process.

ACA Sports Council Symposium

September 27-29, 2013

Meadowlands Sheraton Hotel East Rutherford, NJ

This year's symposium will offer 16 hours of lectures, hands on and on the field learning while giving the opportunity to obtain the only internationally recognized sports chiropractic certification, the ICSSD (International Chiropractic Sports Science Diploma) in conjunction with FICS. The symposium hours are also BOATC certified through NYCC.

Lecture Acute management, risks on and off the field – Phil Santiago, DC, ICSSD/Ira Shapiro, DC, DACBSP, ICSSD /Tim Stark, DC, ICSSD

International sensitivity in sport – Phil Santiago, DC, ICSSD/Tim Stark, DC, ICSSD

Concussion Updates – Ed Feinberg, DC, DACBSP, ICSSD

Advances in Therapy (Laser/Soft Tissue, ETC – Gary Reinl /Harlan Pyes

On the field injury management (bleeding injuries, unconscious athletes, heat injuries, cervical spine injuries) This will be on the field scenarios performed on the field in MetLife stadium Ira Shapiro, DC, DACBSP, FICC /Victor Dolan, DC DACBSP, ICSSD/Len Ershow, DC, DACBSP,ICSSD/Bill Bonsall, DC, DACBSP,ICSSD

Jennifer Illes, DC, dAP, MS – Mouthguards, performance enhancements and decreasing brain injury in head trauma

Tom Michaud,DC – Advances in biomechanical examination and treatment protocols based on 3-dimensional imaging

Robert Silverman, DC, DACBN,DCBCN,CCN,CSCS,CIISN,CES,HKC – Nutritional considerations for Optimal Performance in the female athlete

The following speakers will present a hands on presentation in a small group setting

Rob Destefano, DC, CCSP – Soft tissue treatment utilizing the FastStick technique

Greg Doerr, DC, CCSP, CKTP – FAKTR/ Functional taping

Mark Mandell, DC – Vibrational Therapy

Perry Nickleston, DC, NKT, SFMA – Primal Rehab– Back to Basics (Facial functional Taping)

Hall of Fame: This year there will be a black tie optional Sports Chiropractic Hall of Fame Banquet on Saturday night. There have only been eight inducted into the Hall of Fame since Earl Painter, the trainer/chiropractor for Babe Ruth and the Yankees.

Student Poster Contest: For the students we are once again doing our Poster Presentation awarding cash prizes to the top three student presentations.

The ACA Sports Council is working in conjunction with the ANJC (Association of NJ Chiropractors) as well as NYCC to promote this year's symposium. We anticipate approximately 200 doctors and 50 students to be in attendance.

Is Ice (cryotherapy) a Good Idea?

Yes, if the short-term goal is pain control and the prevention of the body's normal cellular and vascular response to injury.

However, if the goal is to help the lymphatic system evacuate trapped waste from the damaged area, the answer is ... no.

Why? Because ice slows everything down. It abates, or worse, shuts off the signals between the nerves and the muscles ... which basically stops lymphatic drainage (the lymphatic system works when the surrounding muscles contract and relax: no muscle action, no drainage). In fact, if ice is used beyond ten minutes or so, it actually increases waste in the involved area by causing the lymphatic vessels to backflow.

Here's what happens:

“When ice is applied to a body part for a prolonged period, nearby lymphatic vessels begin

to dramatically increase their permeability (lymphatic vessels are ‘dead-end’ tubes which ordinarily help carry excess tissue fluids back into the cardiovascular system). As lymphatic permeability is enhanced, large amounts of fluid begin to pour from the lymphatics ‘in the wrong direction’ (into the injured area), increasing the amount of local swelling and pressure and potentially

“The lymphatic system is a ‘scavenger’ system that removes excess fluid, protein molecules, debris, and other matter from the tissue spaces. When fluid enters the terminal lymphatic capillaries, any motion in the tissues that intermittently compresses the lymphatic capillaries propels the lymph forward through the lymphatic system, eventually emptying the lymph back into the circulation.”

**Textbook of Medical Physiology 10th Edition,
Guyton and Hall**

contributing to greater pain.”

The use of Cryotherapy in Sports Injuries,’ Sports Medicine, Vol. 3. pp. 398-414, 1986



BENEFITS

Promoting Sports Chiropractic:

USA member to FICS

Legislative Action &
Promotion

Joint Commission on Sports
Medicine and Science

Student Mentorship

Member Opportunities:

USA Track and Field

Women's Professional Golf

Chiro Sports Networks

International FICS Events

EDUCATION

WE HELP YOU STAY
CURRENT:

ANNUAL SYMPOSIUM

SPORTS TALK

E-BLASTS

SOCIAL MEDIA

WEBSITE

POSITION STATEMENTS

Membership Drive



**WE ARE THE LARGEST SPECIALTY COUNCIL
IN THE ACA AND WE ARE COMMITTED TO
SPORTS CHIROPRACTIC ON THE FIELD, IN
THE COMMUNITY, IN THE OFFICE AND ON
THE LEGISLATIVE BATTLEFIELD.**

As the membership of our association grows, so does our strength. With increased membership we reach a larger audience, have a larger impact and a louder voice. This year the ACA Sports Council will be running a **Membership Drive** with incentives for referrals. We challenge each of you, our members, to refer new members to the Sports Council. To thank you for helping us grow, we offer the following incentives: for every three referrals made you will receive 1 year membership free, and for every 6 referrals you will receive a free symposium registration! Don't forget to remind the new member you recruit to use your name as a referral source when they register.

NUMBERS

CURRENT MEMBERS

362

DOCTOR MEMBERS

295

STUDENT MEMBERS

67

It has been well emphasized that the nature of concussions are very complex and the role of pre-participation concussion evaluation offers a great deal of information for those who are involved in the management of athletes and concussions. This should again include all head injuries that an athlete has suffered, as well as any traumatic injuries to the face or even neck, as concussions can often go undiagnosed with these other types of injuries. The pre-participation physical examination plays another significant role as an educational opportunity with the player of concern as well as an opportunity to consider any potential modifications of playing behavior to reduce to incidence of another concussion.

It may be evident that educational opportunities about concussions are significant at any age group. Of these age groups it is essential to begin education early for young athletes, their parents, teachers, and coaches stressing the severity of these injuries. The 2008 consensus had originally listed children under the age of 10 as presenting different concussion symptoms than adults. The 2012 consensus has since updated and changed this age to 13. In addition, one of the most significant updates the committee has presented was the development of a Child SCAT3 evaluation.

The management of children concussions is not that far fetched from those of their adult counterparts. There was unanimous

consensus that no return to play will be allowed for children who have experienced a concussion. They should refrain from over stimulatory activities such as video games and texting. It was also agreed that children should not be able to return to sports activities until successfully returning to their classroom work.

We have now evaluated the various updates and discussed different conclusions the 4th International Conference on Concussion in Sports in Zurich has implemented in their consensus statement from November of 2012. The remainder of this review will further summarize the specific questions, based off of systematic review articles, which were focused on during the conference.

The panel addressed questions pertaining to assessing an athlete acutely when they don't have a concussion and whether a cognitive injury is the key component of concussion in making a diagnosis. At present there is no perfect and reliable diagnostic test for immediate concussion diagnosis in a sporting environment. A cognitive deficit is not necessary for acute diagnosis. The panel recommends removal of the participant from the playing field and follows up assessment by the treating physician or healthcare provider.

The panel assessed questions referring to current existing tools used for concussion

diagnosis, as well as the sensitivity of such tests. As mentioned before, concussion sign and symptoms can vary across a large spectrum and a clinical diagnosis is largely based on the observed mechanism of injury, signs and symptoms. There are several high validity neuropsychological tests appropriate for use in acute concussion assessment; however they should not be used solely to diagnose concussion.

The question of the best practice for evaluating an adult athlete with concussion on the 'field of play' was discussed. Recognizing and evaluating concussion on field is a difficult task for the healthcare provider, as presentation can vary, sideline tools might be unreliable as far as specificity and sensitivity and reliance on symptoms is limiting. It was deemed critical by the panel that a standardized objective assessment of injury was critical.

How can the SCAT2 be improved? The new SCAT3 test employs an initial assessment of injury severity utilizing the Glasgow Coma Scale (GCS). The GCS was moved from page two to the front page, so that information about the severity of the injury can be ascertained in as streamlined of a manner as possible. Upon discussing the GCS, the panel decided that observing and documenting concussion signs should immediately follow the GCS. The next assessment discussed should be neurocognitive and balance functions, however a

15 minute rest period was recommended before further assessment, in order to avoid the influence of exertion and fatigue on the athlete's performance. This time frame was arbitrary, although the panel did agree that a rest period was necessary. The panel did agree that a rest period was necessary. The panel also discussed changing the format of the new SCAT3, as discussed earlier, to include ages 13 and up, and then a new tool was developed for children 5 -12.

The CISG describes neuropsychological assessment as a 'cornerstone' of concussion management. Concussion problems can be measured by certain tools such as symptom scales, balance and neurocognitive tests. Since it is understood that concussion signs and symptoms have a variable presentation, and there can be many changes in the first few days following injury, it was discussed that neuropsychologists are uniquely qualified to interpret test data. Thus neuropsychological assessment programs have been instituted in professional sports, colleges and high schools.

The panel discussed questions pertaining to whether there was any new evidence that existed for new strategies/ technologies in the diagnosis of concussion and assessment of recovery. Examples of new technologies include quantitative electroencephalography, robotics, telemedicine, eye-tracking technologies and etc. As of the date of the Zurich meeting in 2012, only

limited evidence exists for the role of these new tools in concussion diagnosis.

Advances in the management of sport concussion: what is evidence for concussion therapies? The CISG mentioned that current evidence of the effect of rest and treatment following a sports-related concussion was sparse. The panel agreed that a certain period of rest may be of benefit, however there needs to be further research to determine optimal rest period, rehabilitative techniques and exercise for individuals that have sustained a concussion.

The difficult question of what is the best approach to investigate and manage persistent post concussive symptoms was discussed. Persistent post-concussion symptoms were defined as any greater than ten days. This may vary based on age and level of sport involved. In general, symptoms are not specific to concussion and it is important to consider and manage co-existent pathologies. A multi-disciplinary approach is recommended to manage post concussive symptoms that last for longer than ten days.

How should the evaluation and management of acute concussion differ in specific groups? Once again the panel stressed that concussion can present variably. For example, brief LOC, duration of post-trauma amnesia and impact seizures do not reliably predict outcome following

concussion. Children generally take longer to recover from concussions and they can also present differently, thus the child SCAT3 was developed. Emphasis on return to learn before return to sport was stressed in children.

What are the most effective risk reduction strategies in sport concussion? - from protective equipment to policy? The CISG discussed that there was no new evidence to suggest the use of standard headgear in rugby or the use of mouth guards in the NFL to prevent concussions. No new evidence was provided to suggest an association between neck strength increases and concussion risk reduction.

What is the evidence for chronic concussion-related changes? - behavioral, pathological and clinical outcomes. The panel discussed the impact of chronic traumatic encephalopathy (CTE). The incidence of CTE in athletic populations is unknown, and it was agreed that CTE was not related to concussions alone. Further research, in the form of cohort and prospective studies relating to modern CTE is needed. The extent to which age-related changes, psychiatric or mental health illness, alcohol/drug use or co-existing medical illnesses contribute to the impact of CTE is unknown and further studies are also necessary.

From consensus to action - how do we optimize knowledge transfer, education and ability to influence policy? The panel talked about how the value of knowledge transfer has become more recognized. Concussion severity has been recognized in the media, but it's important that the public receives correct information. The panel discussed how an expansion of knowledge transfer would have an impact on population knowledge and awareness.

References:

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Fédération Internationale de Chiropratique du Sport
The International Federation of Sports Chiropractic

FICS Updates

Attention all Sports Doctors:

The International Federation of Sports Chiropractors (FICS) has requested we develop a list of Doctors of Chiropractic who are currently working within the USA with a professional or college sports team. If you, or someone you know, are working in this capacity, please email us so we can include you. Please send your submissions to Dr. Sherri LaShomb at president@acasc.org.

FICS Newsletter March 2013

The latest FICS Newsletter is available for download, follow the link to the FICS website:

[FICS Newsletter March 2013](#)

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