

The Amsterdam Consensus: A Step Forward in Concussion Management

In 2001, international researchers, medical professionals along with representatives from sports organizations and governing bodies formed a group to develop a consensus statement and to establish guidelines for the management of concussions in sports. The group is called the Concussion in Sports Group (CISG). The group meets every 4 years, and the most recent meeting was in 2022 in Amsterdam and the updated consensus statement was released in May of 2023. A copy of the consensus statement can be downloaded by clicking here [here](#). Keep in mind that the recommendations for sports related concussion (SRC) can reasonably be extrapolated to include concussions from any cause including the types of injuries we see everyday in our practices. (You may observe that the Amsterdam study was released 2 years beyond the 4 year schedule due to the Covid-19 pandemic)

The Amsterdam Consensus (and the prior 2016 Berlin Consensus) had reported some significant changes from prior consensus reports. The Berlin consensus is significant because it was the first to recognize that despite rest being the most widely recommended early treatment, there was insufficient evidence that rest was helpful. In fact, the Berlin consensus suggested that beyond the first 24-48 hours, patient should be instructed to gradually increase activity so long as they stayed below cognitive and physical symptom thresholds. Prior consensus reports did not recommend any form of rehabilitation. The Berlin consensus introduced several potential treatments for persistent concussion symptoms.

The Amsterdam Consensus offered some additional updated recommendations. Two of them included the use of an updated Sport Concussion Assessment Tool (SCAT-6), which is preferably used during the first 72 hours but up to one week after injury, and the Concussion Recognition Tool-6 (CRT-6). New tests introduced included the Sports Concussion Office Assessment Tool-6 (SCOAT-6) and the Child SCOAT-6 which were designed to be used in the office setting and after the initial 72 hours for serial assessments. The consensus also updated Return-to-Learn and Return-to-Work Strategies. These can be reviewed in future newsletters.

I am participating in a 50-hour course on concussion and mild traumatic brain injury (mTBI). The course instructors include Jeff Kutcher, MD Neurologist, a world-renowned expert in concussion diagnosis and management and post-concussion syndrome (PSaC) and Dr. Roger Russell, DC, MS, DIANM who is board certified chiropractic orthopedist and has a master's degree in Biomechanical Trauma. Roger is also a certified Concussion Management Healthcare Practitioner. I've known and studied with Roger for over 25 years, and he is one of the best and brightest physicians I have met in the profession.

I've kept this newsletter brief because I don't want to get into the weeds...yet. If there is interest in future concussion and mTBI newsletters, as I progress through the course modules, I will write additional newsletters. I believe the next one would be on the [New Neurometabolic Cascade of Concussion](#) paper (C. Giza and D. Hovda; Neurosurgery. 2014 Oct; 75(0 4): S24–S33) which advanced the understanding of concussion/TBI and therefore how patients should be attended to clinically. Here is the abstract for your review:

Since the original descriptions of post-concussive pathophysiology, there has been a significant increase in interest and ongoing research to study the biological underpinnings of concussion. The initial ionic flux and glutamate release result in significant energy demands and a period of metabolic crisis for the injured brain. These physiological perturbations can now be linked to clinical characteristics of concussion, including migrainous symptoms, vulnerability to repeat injury and cognitive impairment. Furthermore, advanced neuroimaging now allows a research window to monitor post-concussion pathophysiology in humans noninvasively. There is also increasing concern about the risk for chronic or even progressive neurobehavioral impairment after concussion/mild TBI. Critical studies are underway to better link the acute pathobiology of concussion with potential mechanisms of chronic cell death, dysfunction and neurodegeneration. This “new and improved” paper summarizes in a translational fashion and updates what is known about the acute neurometabolic changes after concussive brain injury. Furthermore, new connections are proposed between this neurobiology and early clinical symptoms as well as to cellular processes that may underlie long term impairment.

Click [here](#) for a link to the study and let me know if you want more on the topic. To me, it's a fascinating topic. You'll let me know what you think.