Course Information Sheet

Course Title: Handbook of Neurological Sports Medicine

Course Description: This important course looks at concussions and other traumatic injuries, including injuries to the cervical, thoracic, and lumbar spine, and the soft tissue and fascia within the spinal unit. It provides an overview of peripheral nervous system injuries to ensure medical professionals understand those serious and potentially career-ending issues, reviews facets of optimal response with suspected or proven spinal injury, and discusses the evaluation and management of athletes with non-concussion-related headaches and heat illness or heatstroke. The text includes a review of cases of interest and provides examples of real-world situations that can and do occur. More than 150 photos and illustrations offer visual support to further explain the injuries. This program provides a critical resource for all who encounter and treat neurological injuries, providing the foundation for the clinical decisions that all athletic medical practitioners must make to give their patients the best treatment possible. Hardcover. 416 pages. Course includes hard-cover textbook, separate testing booklet and free, instant grading.

Learning Objectives:
1. Know the history of Sports Medicine and how it impacted current management strategies.
2. Understand the evolution of Sports Medicine in the present day, which includes the roles of parents, coaches, athletic trainers, therapists, and physicians.
3. Be able to define and utilize Standard of Care and understand how this pertains to a court of law.
4. Understand the Good Samaritan Laws and know that they vary from state to state.
5. Learn what assumption of the risk implies and the theories of negligence.
6. Review pivotal court cases that have led to the advancement of athlete safety through history.
7. Realize the implications of the lawsuit against the NFL in 2013 for allowing head injuries to occur and not allowing appropriate recovery before resuming play.
8. Learn how to develop an Emergency Action Plan and the practice that it will require to implement.
9. Understand the importance of equipment, communication, transportation, venue location, medical care facilities, and the documentation of the emergency action plan.
10. Understand what is required for the primary survey, secondary survey, sideline assessment, and the need for spine boarding and stabilization.
11. Learn the function of the twelve cranial nerves and how a defect would be determined.
12. Learn the spinal nerve motor root distribution for the entire spinal column and how to test for deficiencies.
13. Understand the responsibilities of the host medical team and how these are established before the beginning of the competition or season.
14. Understand the biomechanics and physics of how a concussion can occur, including
force, torque, linear acceleration, and rotational acceleration.

15. Understand the risk of concussive injuries in boxing, hockey, and soccer.
16. Learn the pathophysiology of concussions and the neurometabolic cascade that occurs at both the neuron and axon.
17. Understand why previous attempts to grade concussions failed to determine the amount of brain injury, and that loss of consciousness is not the key predictor of concussion outcome.
18. Learn how to grade a traumatic brain injury with the Glasgow Coma Scale
19. Understand the signs and symptoms of concussions and how to test for them on the sidelines.
20. Understand the effect of age, gender, and pre-existing conditions, which may increase the likelihood of concussions or their severity.
21. Learn the various methods of neuroimaging for brain injuries and what information each method will provide.
22. Understand the importance of neuropsychological assessment in determining the extent of the concussion injury.
23. Learn what common neuropsychological assessments are testing for, including paper testing, ImPACT, ANAM, CogSport, HeadMinder, and Concussion Vital Signs.
24. Know how underlying psychological problems can complicate the recovery from a concussion.
25. Understand the importance of balance assessment after a concussion and the three systems in the body that contribute to balance.
26. Learn several testing methods to determine the extent of the balance compromise from the concussion.
27. Understand how biomarkers may be the future of assessing the extent of brain injury from a concussion.
28. Learn the definition and symptoms of Postconcussion Syndrome as well as two different ways to determine if it is present.
29. Learn how preexisting psychological disease can increase the chances of Postconcussion Syndrome.
30. Understand the causes of arterial dissection and how arterial dissection can lead to stroke.
31. Know the sports and risk factors that can lead to athlete fatalities and posttraumatic seizures.
32. Understand the significance of Second Impact Syndrome and the rapid neurological deterioration that occurs.
33. Understand the impact of the neurological injury on return to play.
34. Learn the stages of concussive injury and the symptoms that occur in each stage.
35. Understand the current guidelines to follow for concussion recovery and return to play.
36. Learn about brain abnormalities which can occur from the concussion or be pre-existing which will impact a player’s ability to continue sports, such as Chiari Malformation, Arachnoid cysts, ventriculoperitoneal shunts, prior craniotomy, and Epilepsy.
37. Understand that most concussions will resolve with physical and cognitive rest, but if symptoms are severe, pharmacological treatment may be required.
38. Learn the types of medications used and their side effects for the treatment of headaches, dizziness, fatigue, nausea, sleep disturbances, emotional symptoms, and cognitive impairment.
39. Know the vascular, soft tissue, bone, disc, and fractures that commonly impact athletic performance.
40. Understand the initial care, rehabilitation, surgical possibilities, and return to play guidelines for cervical, thoracic, and lumbar spine injuries.

**Target Audience:** Beginner/Intermediate/Advanced

**Schedule and Format:** Self-paced home study

**Fees:** Please see our website for the most current details on pricing & CE awards: www.exerciseetc.com

**Cancellation/Refund Policy:** After you get your home study course you have three days to change your mind for a full refund. Just notify us within that three day window and then return the book to us in saleable condition. That’s it. No questions asked.

**Instructor/Author Credentials:**

**Anthony L. Petraglia, MD,** graduated from the University of Chicago in 2002 with a BA in neuroscience and earned his medical degree from the University of Rochester School of Medicine and Dentistry in 2007. He completed his residency in neurological surgery at the University of Rochester Medical Center in 2014. Petraglia was the first neurosurgery resident to complete a neurological sports medicine fellowship, and is currently an attending neurosurgeon at Unity Health System in Rochester, New York, where he is also the director of the concussion program.

Petraglia has presented nationally and internationally on neurological sports medicine, has published numerous manuscripts and book chapters on various aspects of neurological surgery, and performs editorial duties for several medical journals. His membership in professional organizations includes the Congress of Neurological Surgeons (CNS) and the American Association of Neurological Surgeons (AANS), and he has served as an assistant to the Sports Medicine Section of the AANS/CNS. He has worked as a physician with several collegiate and high school football teams, as a neurosurgical consultant for the Webster Youth Sports Council, and as a medical director for cyclocross racing.

**Julian E. Bailes, Jr., MD,** earned a BS from from Louisiana State University in 1978, and his MD from Louisiana State University School of Medicine in New Orleans in 1982. He completed a general surgery internship at Northwestern Memorial Hospital in 1983 and a neurological
surgery residency at Northwestern University in Chicago in 1987, as well as a fellowship in cerebrovascular surgery at the Barrow Neurological Institute in Phoenix.

Bailes was director of cerebrovascular surgery at Allegheny General Hospital in Pittsburgh from 1988 until 1997 and later at Celebration Health Hospital in Orlando, where he also was the director of emergency medical services at both the city and county levels. In 2000, Bailes assumed the position of professor and chair in the department of neurosurgery at West Virginia University School of Medicine in Morgantown. He most recently assumed the position of chair of the department of neurosurgery at NorthShore University Health System in Chicago and is co-director of the Neurological Institute.

Bailes is a past chair of the Sports Medicine Section for the American Association of Neurological Surgeons. He has more than 100 publications concerning various aspects of neurological surgery, including three books on neurological sports medicine, and performs editorial duties for numerous medical journals. He is an internationally recognized expert on neurological athletic injuries and has been a team physician at either the National Football League (NFL) or collegiate level for more than 20 years. Since 1992, he has been the neurological consultant to the NFL Players’ Association (NFLPA), which has sponsored his research on the effects of head injuries on professional athletes. He is the director of the NFLPA’s Second Opinion Network. He is the medical director of the Center for Study of Retired Athletes, which is affiliated with the NFLPA and the University of North Carolina, and is the medical director of Pop Warner Football, the nation’s largest youth football association.

Arthur L. Day, MD, graduated from Louisiana State University Medical School in 1972.

He completed his surgical internship in Birmingham, Alabama, and subsequently completed his residency in neurological surgery and fellowship in brain tumor immunology at the University of Florida College of Medicine in Gainesville, Florida.

Day practiced at the University of Florida for 25 years, ultimately rising to the positions of professor, co-chair, and program director of the department of neurological surgery at the University of Florida. In 2002, he moved to Boston to assume a position as a professor of surgery at Harvard Medical School with a clinical practice at Brigham and Women’s Hospital. While there, he served as the associate chair and residency program director of the department of neurological surgery at Brigham and Women’s and Children’s Hospital in Boston. Subsequently, he was the chair of the department and also the director of the Cerebrovascular Center and the Neurologic Sports Injury Center at Brigham and Women’s Hospital. He co-founded and directed an annual meeting at Fenway Park addressing the latest knowledge and treatments of athletic-related neurological injuries. He currently is professor, vice chair, residency program director, and director of clinical education in the department of neurosurgery at the University of Texas Medical School at Houston.

Day has held leadership positions in many medical professional societies and has received
numerous awards and honors. He has published almost 170 journal articles and book chapters and has co-edited a book about neurological sports injuries. He is an internationally recognized expert in neurological sports medicine. For the past 30 years, he has served as a consulting physician for multiple NCAA and National Football League (NFL) teams.

**Contact Hours/CEs:** Please see our website for the most current details on pricing & CE awards: [www.exerciseetc.com](http://www.exerciseetc.com)

**Sponsors:** N/A