# American College of Veterinary Sports Medicine and Rehabilitation

# Topic Rubric for the 2020 Equine-specific Board-certification Examination

The following table provides a detailed outline of the topics and estimated percentage distribution of material to be covered in the 2020 Equine Species-specific Examination.

Percentage Distribution	EQUINE SPORTS MEDICINE AND REHABILITATION EXAMINATION
21%-25%	Foundational Material     Addresses the general working knowledge needed for daily equine sports medicine and rehabilitation practice including foundational biomechanical and biological concepts
	Physical examination, gait analysis, lameness evaluation, and diagnostic analgesia
	Exercise physiology, energetics and thermoregulation
	Nociception and pain physiology, pain management, and pharmacology
	<ul> <li>Fundamentals of physical conditioning strategies for specific English and Western disciplines</li> </ul>
	Nutrition and nutraceuticals
	• Farriery
	Saddle, tack and training equipment
	Ground surfaces, racing surfaces
22%-27%	2. Neuromusculoskeletal System  Addresses common neurologic, muscular and orthopaedic disorders and equine sport- specific injuries in both English and Western disciplines  Topics address biomechanics, mechanisms of injury, pathophysiology, principles of tissue healing and repair Includes general surgical indications, post-operative care, and prognosis for return to sport following injury associated with common orthopaedic and neurologic disorders
	Axial skeletal (head, neck, trunk, pelvis)
	Thoracic limb
	Pelvic limb
9%-13%	3. Medical Issues of the Equine Athlete  Addresses the anatomy, physiology, pathophysiology, medical diagnosis and management, and rehabilitation of common cardiac, respiratory, and gastrointestinal disorders  Includes general surgical indications, post-operative care, and prognosis for return to sport associated with cardiovascular, respiratory and gastrointestinal disorders in equine athletes in both English and Western disciplines
	Cardiovascular
	Respiratory

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	Gastrointestinal
	Special senses, vestibular, balance, and coordination
	Endocrine, metabolic and hereditary
20%-24%	Diagnostic Imaging     Topics specific to diagnostic imaging of the equine sports medicine and rehabilitation patient
	Radiology
	Ultrasonography
	Magnetic resonance imaging
	Nuclear scintigraphy
	Computed tomography
	Endoscopy
	Thermography
13%-17%	Physical Rehabilitation     Topics specific to rehabilitation and optimized performance of the equine athlete and conservative management of common medical and surgical disorders
	Manual therapies (massage, stretching, mobilization)
	Physical modalities (thermal, mechanical, electromagnetic, photic)
	Therapeutic exercise (flexibility, proprioception, motor control, strength)
5%-7%	Biological Therapies     Topics specific to equine gene therapy, stem cell therapy, platelet-rich plasma (PRP), and interleukin-1 receptor antagonist protein (IRAP)
2%-4%	7. Ethics, Regulatory and Legal Issues  Address ethical issues, drug regulations and the effects of legal and illegal substances in equine sports medicine and athletic competitions including issues and regulations relevant to the United States Equine Federation (USEF) and the Fédération Equestre Internationale (FEI).

## Reading List for the 2020 Equine-specific Board-certification Examination

Please note that this is a guideline for a reading list of textbooks and journals suggested for preparation for the 2020 board-certification examination with the American College of Veterinary Sports Medicine and Rehabilitation.

Disclaimer: Due to the very diverse knowledge base required of sports medicine and rehabilitation, this reading list is suggested, but not all inclusive. Candidates should use the American College of Veterinary Sports Medicine and Rehabilitation examination rubric for identification of examination topics and the percentage distribution of examination questions within in each topic area as the basis for preparation for the respective examinations.

### **Selected Equine Sports Medicine and Rehabilitation Textbooks**

Each of the selected textbooks, most current edition, contains chapters with material pertinent to the field of equine sports medicine and rehabilitation. The applicant will be responsible for material within relevant chapters related to the basic science and clinical practice of equine sports medicine and rehabilitation.

- 1. Back W, Clayton HM. Equine Locomotion, 2<sup>nd</sup> edition. Saunders. 2013. ISBN: 9780702029509.
- 2. Hinchcliff K, Kaneps A, Geor R. Equine Sports Medicine and Surgery. 2<sup>nd</sup> edition. Saunders, 2014. ISBN 978-0702047718.
- 3. McIlwraith, CW, Frisbie, DD. Kawcak CE, van Weeren PR. Joint Disease in the Horse, 2<sup>nd</sup> edition, 2016. Elsevier. ISBN 978-1-4557-5969-9.

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4. Ross MW, Dyson SJ. Diagnosis and Management of Lameness in the Horse, 2<sup>nd</sup> edition, Saunders Elsevier 2010. ISBN: 1416060693.

### **Selected Equine Sports Medicine and Rehabilitation Journals**

The veterinary journals listed below contain articles relevant to the field of equine sports medicine and rehabilitation. Within the listed journals, most examination questions will originate from literature published within the last five and a half (5.5) years. For the 2020 American College of Veterinary Sports Medicine and Rehabilitation board-certification examination, questions will be created from literature published between January 1, 2014 and June 30, 2019.

Exam questions may also originate from information in older journal articles (prior to January 2013) if they are considered essential or foundational to the development and practice of equine sports medicine and rehabilitation. The applicant is responsible for material as it relates to the basic science and clinical practice of equine sports medicine and rehabilitation.

- American Journal of Veterinary Research
- Equine Veterinary Journal
- Frontiers in Veterinary Science
- Journal of the American Veterinary Medical Association
- Journal of Veterinary Internal Medicine
- Veterinary Journal
- Veterinary Clinics of North America: Equine Practice Relevant topics only
  - Rehabilitation of the Equine Athlete, Veterinary Clinics of North America: Equine Practice. Editors Melissa R. King and Elizabeth J. Davidson, April 2016, Volume 32, Issue 1.

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- Veterinary Radiology and Ultrasound
- Veterinary Record
- Veterinary Surgery