

## American College of Veterinary Sports Medicine and Rehabilitation

### Topic Rubric for the 2020 Canine-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 Canine Species-specific Examination.

Percentage Distribution	CANINE SPORTS MEDICINE AND REHABILITATION EXAMINATION
24%-28%	<p><b>1. Foundational Material</b> Addresses the general working knowledge needed for daily canine sports medicine and rehabilitation practice including foundational biomechanical and biological concepts</p> <ul style="list-style-type: none"> <li>• Physical examination, gait analysis and lameness evaluation</li> <li>• Basic biomechanical and biological features of sports medicine and rehabilitation</li> <li>• Nociception and pain physiology, pain management, and pharmacology</li> <li>• Exercise physiology, energetics and thermoregulation</li> <li>• Nutrition and nutraceuticals</li> <li>• Fundamentals of canine physical conditioning</li> <li>• Training equipment (e.g., harnesses, agility obstacles, jumps)</li> </ul>
22%-27%	<p><b>2. Neuromusculoskeletal System</b> Addresses common neurologic, muscular, and orthopaedic disorders and canine sport-specific injuries Topics address biomechanics, mechanisms of injury, pathophysiology, principles of tissue healing and repair, and geriatric issues Includes general surgical indications, post-operative care, and prognosis for return to sport following injury associated with common orthopaedic and neurologic disorders</p> <ul style="list-style-type: none"> <li>• Axial skeletal (head, neck, trunk, pelvis)</li> <li>• Thoracic limb</li> <li>• Pelvic limb</li> </ul>
9%-13%	<p><b>3. Medical Issues of the Canine Athlete</b> 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 canine athletes</p> <ul style="list-style-type: none"> <li>• Special senses (sight, smell), vestibular, balance, and coordination</li> <li>• Cardiovascular</li> <li>• Respiratory</li> </ul>

	<ul style="list-style-type: none"> <li>• Gastrointestinal</li> <li>• Endocrine, metabolic and hereditary</li> </ul>
11%-14%	<p><b>4. Diagnostic Imaging</b> Topics specific to diagnostic imaging of the canine sports medicine and rehabilitation patient</p> <ul style="list-style-type: none"> <li>• Radiology</li> <li>• Computed tomography</li> <li>• Ultrasonography</li> <li>• Nuclear scintigraphy</li> <li>• Magnetic resonance imaging</li> <li>• Thermography</li> </ul>
20%-27%	<p><b>5. Physical Rehabilitation</b> Topics specific to rehabilitation and optimized performance of the canine athlete and conservative management of common medical and surgical disorders</p> <ul style="list-style-type: none"> <li>• Manual therapies (massage, stretching, mobilization)</li> <li>• Physical modalities (thermal, mechanical, electromagnetic, photic)</li> <li>• Therapeutic exercise (proprioception, motor control, strength)</li> <li>• Application and use of assistive devices (orthotics, prosthetics, carts)</li> </ul>
5%-8%	<p><b>6. Biological Therapies</b> Topics specific to canine gene therapy, stem cell therapy, platelet-rich plasma (PRP), and interleukin-1 receptor antagonist protein (IRAP)</p>
2%-3%	<p><b>7. Ethics, Regulatory and Legal Issues</b> Address ethical issues and possible drug regulations in canine sports medicine and athletic competitions</p>

## Reading List for the 2020 Canine-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 Canine Sports Medicine and Rehabilitation Textbooks

Each of the selected textbooks contains chapters with material pertinent to the field of canine sports medicine and rehabilitation. The applicant will be responsible for material within relevant (or included) chapters related to the basic science and clinical practice of canine sports medicine and rehabilitation. In addition, questions on the species specific exams may draw from any references on the Core Reading List.

1. Ettinger SJ and Feldman EC. Textbook of Veterinary Internal Medicine. 2017, 8<sup>th</sup> edition. Elsevier Saunders. ISBN: 9780323312110.

**INCLUDING** the following chapters:

Vol. 1, chapters: 1, 2, 5, 12, 14-16, 21, 30-33, 39-42, 55, 61, 67-70, 84, 92, 94, 116-117, 126-129, 132, 134-137, 140-141, 151, 157, 160-167, 170-173, 175-177, 187, 190, 192, 203, 205, 207-210, 211-221, 225-228, 233-234, 239

Vol. 2, chapters: 240-242, 246, 248, 251-252, 254-255, 258-261, 265, 267-269, 274-278, 280-281, 289-290, 295, 299, 306, 309, 312-313, 321, 328, 330-331, 338, 348, 353-356, 359

2. Hand MS, Thatcher CD, Remillard RL, Roudebush P and Novotny BJ. Small Animal Clinical Nutrition. 2010, 5<sup>th</sup> edition. Mark Morris Institute. ISBN: 978-0615297019.
3. McGowan C, Goff L. Animal Physiotherapy - Assessment, Treatment and Rehabilitation of Animals 2016, 2<sup>nd</sup> Ed. 2016. Blackwell Publishing. ISBN: 978-1-118-85232-3
4. Miller's Anatomy of the Dog. Evans HE and de Lahunta A. 2013, 4<sup>th</sup> edition, Elsevier Saunders. ISBN-13: 978-1437708127.
5. Millis D, Levine D. Canine Rehabilitation and Physical Therapy. 2014, 2<sup>nd</sup> edition. Elsevier Saunders. ISBN: 978-1437703092.
6. Veterinary Surgery: Small Animal. Johnston SA, Tobias KM 2<sup>nd</sup> edition. Saunders 2017.. **Hardcover ISBN:** 978-0323320658 **eBook ISBN:** 978-0323320658
7. Zink CM and Van Dyke JB. Canine Sports Medicine and Rehabilitation. 2018. 2<sup>nd</sup> edition John Wiley and Sons. ISBN: 978-1-119-38062-7.

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

The veterinary journals listed below contain articles relevant to the field of canine sports medicine and rehabilitation. Within the listed journals, the majority of examination questions will originate from literature published within the last five 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 2014) if they are considered essential or foundational to the development and practice of canine sports medicine and rehabilitation. The applicant is responsible for material as it relates to the basic science and clinical practice of canine sports medicine and rehabilitation.

- American Journal of Veterinary Research
- Canadian Veterinary Journal
- Frontiers in Veterinary Medicine
- Journal of Small Animal Practice
- Journal of the American Animal Hospital Association
- Journal of the American Veterinary Medical Association
- Journal of Veterinary Internal Medicine
- Veterinary and Comparative Orthopaedics and Traumatology
- Veterinary Clinics of North America: Small Animal Practice - *Relevant topics only*
  - Rehabilitation and Physical Therapy. Veterinary Clinics of North America: Small Animal Practice. Marcellin-Little DJ, Levine D, and Millis DL (editors). January 2015, Volume 45, Issue 1.
  - Additional issues as relevant to Canine Sports Medicine and Rehabilitation
- Veterinary Radiology and Ultrasound
- Veterinary Record
- Veterinary Surgery