



**AUSTRALIAN AND NEW ZEALAND
COLLEGE OF VETERINARY
SCIENTISTS**

MEMBERSHIP GUIDELINES

Small Animal Dentistry and Oral Surgery

INTRODUCTION

These Membership Guidelines should be read in conjunction with the *Membership Candidate Handbook*.

ELIGIBILITY

Refer to the *Membership Candidate Handbook*.

OBJECTIVES

An advanced practitioner, representing a middle-tier of knowledge, competence and experience in Small Animal Dentistry and Oral Surgery. Membership is not a specialist qualification.

LEARNING OUTCOMES

The candidate is expected to be able to confidently apply the following knowledge to the diagnosis and treatment of diseases of the oral cavity:

A **sound** knowledge (dogs and cats, lagomorphs and rodents)

1. Oral and Paradental Anatomy, Embryology, Physiology and Function

The osseous, nervous, muscular and vascular anatomy, embryology, physiology and function of the oral cavity and related structures.

- Oral and paradental¹ anatomy, embryology, physiology and function, including an understanding of head shapes, dentition and occlusion
- Sequence of tooth development and eruption

¹ Knowledge levels:

Sound knowledge- candidate must know all of the principles of the topic, including some of the finer detail and be able to identify areas where opinions may diverge. . A middle level of knowledge

2. Anaesthesia and Analgesia

- Use of local anaesthetics and nerve blocks in small animal dentistry
- Discuss a balanced approach to anaesthesia and analgesia of small animal patients undergoing dental procedures including basic knowledge of the drugs used

3. Oral Radiology

- Extra and intra-oral radiology
- Radiographic positioning techniques
- Identification of oral pathology and trauma from examination of oral radiographs
- Occupational health and safety – risk assessment and treatment
- Computed tomography imaging as pertaining to the oral cavity and related structures

4. Periodontal Disease

- Aetiology, pathogenesis and clinical signs of periodontal disease
- Periodontal therapy
- Periodontal surgery
- Homecare advice and homecare products

5. Oral Disease

The aetiology, pathogenesis, diagnosis and treatment of:

- Developmental and congenital abnormalities of the oral cavity
- Acquired conditions of the oral cavity, including:
 - Inflammatory conditions
 - Oral neoplasia
 - Immune mediated diseases of the oral cavity
 - Diseases of related structures of the oral cavity including salivary glands and masticatory muscles
- Dental and oral trauma
- Diseases of other body systems that have oral manifestations or consequences, including viral, bacterial and fungal diseases

6. Oral Surgery

- Exodontics
- Periodontal surgery
- Oral soft tissue surgery
- Surgery of oral and maxillofacial orthopaedic trauma
- Oral tumour surgery
- Surgery of congenital and acquired palatal defects
- Surgery of the salivary glands

- Suture materials, suturing techniques, the wound healing process and factors affecting it

7. Endodontics

- Aetiology and pathogenesis of pulpal pathology
- The clinical signs and treatment of endodontic disease
- Endodontic techniques
- Re-implantation of avulsed teeth, stabilisation, follow up treatment and prognosis

8. Restorative Dentistry

- Composition of, indications for and use of dental restorative materials

9. Prosthodontics

- Crown preparation and cementing techniques
- Impression materials and impression taking, making of stone models

10. Orthodontics

- Significance of head shapes on the development of dental disease
- Common malocclusions and their management (Class I-IV)
- Ethical considerations when dealing with veterinary orthodontic procedures
- Orthodontic principles
- Orthodontic techniques as applicable to dogs and cats
- Malocclusions in lagomorphs and rodents, aetiologies, consequences and treatments

11. Dental Instrumentation

- Range and use of hand and power instrumentation. The identification and indications for their uses in specific situations:
 - Periodontal therapy
 - Oral surgery
 - Endodontics
 - Restorative dentistry
 - Orthodontics

EXAMINATIONS

For information on both the standard required and the format of the written and oral examinations, candidates are referred to the *Membership Candidate Handbook*. The Membership examination has **two separate components**:

1. **Written Examination** (*Component 1*)
Written Paper 1 (two hours): Principles of the Subject
Written Paper 2 (two hours): Applied Aspects of the Subject
2. **Oral Examination** (*Component 2*)
Oral (approximately one hour)

The written examination will comprise of two separate two-hour written papers taken on the same day. There will be an additional 15 minutes perusal time for each paper. The exam may include a series of short answer questions, multiple-choice questions or may require an essay-type response. The exam is worth a total of 120 marks and all questions must be answered. Allocated marks to each question/sub question will be clearly indicated.

Written Paper 1:

This paper is designed to test the Candidate's knowledge of the principles of Small Animal Dentistry and Oral Surgery as described in the Learning Outcomes. Answers may cite specific examples where general principles apply but should primarily address the theoretical basis underlying each example.

Written Paper 2:

This paper is designed to (a) test the Candidate's ability to apply the principles of Small Animal Dentistry and Oral Surgery to particular cases/problems or tasks and (b) test the Candidate's familiarity with the current practices and current issues that arise from activities within the discipline of Small Animal Dentistry and Oral Surgery in Australia and New Zealand.

Oral Examination:

This examination requires the candidate to demonstrate achievement of the above-mentioned Learning Outcomes. Discussion will be predominantly but not exclusively based on case material. The duration of this examination is approximately one (1) hour. Images and laboratory results will be used during this examination. Several cases will be presented with associated questions asked via an online setting. The oral examination has a total of 120 marks.

RECOMMENDED READING MATERIAL

The candidate is expected to read widely within the discipline, paying particular attention to areas not part of their normal work experiences. This list of books and journals is intended to guide the candidate to some major references and other source material. Candidates also should be guided by their mentors. *The list is not comprehensive and is not intended as an indicator of the content of the examination.*

Recommended reading list:

Lobprise HB, Dodd JR, eds. *Wiggs's Veterinary Dentistry: Principles and Practice*. 2nd ed. Wiley-Blackwell; 2019. (ISBN: 978-1-118-81612-7)

DuPont GA, DeBowes LJ. *Atlas of Dental Radiography in dogs and cats*. WB Saunders; 2009. (ISBN: 978-1-4160-3386-8)

Verstraete FJM, Lommer MJ, Arzi B, eds. *Oral and Maxillofacial Surgery in Dogs and Cats*. 2nd ed. Elsevier; 2019. (ISBN: 9780702076756/ 9780702076763)

Reiter AM, Gracis M, eds. *BSAVA Manual of Canine and Feline Dentistry and Oral Surgery*. 4th ed. British Small Animal Veterinary Association; 2018. (ISBN: 978-1-905-31960-2)

Holmstrom SE, Frost P, Eisner ER. *Veterinary Dental Techniques for the Small Animal Practitioner*. 3rd ed. WB Saunders; 2004. (ISBN: 978-0-7216-9383-5)

Recommended journals

Journal of Veterinary Dentistry

Frontiers in Veterinary Science: Veterinary Dentistry and Oromaxillofacial Surgery

Additional references:

- Berman LH, Hargreaves KM. Cohen's Pathways of the Pulp. 12th ed. Elsevier; 2020. (ISBN: 9780323749671)
- Newman MG, Takei H, Klokkevold PR, Carranza FA. Newman and Carranza's Clinical Periodontology. 13th ed. Elsevier; 2018. (ISBN: 9780323523004/ 9780323533232)
- Shen C, Rawls, R, Esquivel-Upshaw J. Phillip's Science of Dental Materials. 13th ed. Elsevier; 2021. (ISBN: 9780323697552/ 9780323697569)
- Grimm KA, Lamont LA, Tranquilli WJ, et al, eds. Lumb and Jones Veterinary Anesthesia and Analgesia. 5th ed. Wiley-Blackwell; 2015. (ISBN: 9781118526231/ 9781118526323)
- Capello V, Gracis M. Rabbit and Rodent Dentistry Handbook. Wiley-Blackwell; 2005. (ISBN: 9780970639516)
- Sakaguchi R, Ferracane J, Powers J. Craig's Restorative Dental Materials. 14th ed. Elsevier; 2018. (ISBN: 9780323478212/ 9780323478199)
- Hermanson JW, de Lahunta A, Evans HE. Miller and Evan's Anatomy of the Dog. 5th ed. Philadelphia: Elsevier; 2018. (ISBN: 9780323546010/ 9780323676687/ 9780323546027)
- Proffit WR, Fields HW, Larson B, Sarver D. Contemporary Orthodontics. 6th ed. Elsevier, 2018. (ISBN: 9780323543873/ 9780323543880)
- Nanci A, ed. Ten Cate's Oral Histology: Development, Structure, and Function. 9th ed. Elsevier, 2016. (ISBN: 9780323485241/ 9780323485180)
- Murphy BG, Bell CM, Soukup JW. Veterinary Oral and Maxillofacial Pathology. Wiley-Blackwell; 2019. (ISBN: 9781119221258/ 9781119221296)
- Gawor J, Niemiec BA. Feline Dentistry. In: The Veterinary Dental Patient: A Multidisciplinary Approach, Wiley-Blackwell; 2021: 339-361. (ISBN: 9781118974735)
- Lobprise HB, ed. Blackwell's Five-Minute Veterinary Consult Clinical Companion: Small Animal Dentistry. 2nd ed. Wiley-Blackwell; 2012. (ISBN: 9780470959961)
- Tutt C. Small Animal Dentistry: A Manual of Techniques. Blackwell Publishing, London, 2007. (ISBN: 9781405123723/ 9780470753187)
- Reiter AM, ed. Veterinary Dentistry and Oral Surgery. *Vet Clin North Am Small Anim Pract.* 2022; 52(1). doi:10.1016/S0195-5616(21)00156-X. (ISBN: 9780323849203)
- Böhmer E. Dentistry in Rabbits and Rodents. Wiley-Blackwell, 2015. (ISBN: 9781118802540/ 9781118802557)

FURTHER INFORMATION

For further information contact the College Office

Telephone: International +61 (07) 3423 2016

Email: examinations@anzcvs.org.au

Web: www.anzcvs.org.au

Postal Address: Building 3, Garden City Office Park, 2404 Logan Road
EIGHT MILE PLAINS QLD 4113 Australia

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