Veterinary Bioscience: Digestive System

LECTURE 1
INTRODUCTION TO THE DIGESTIVE SYSTEM AND ABDOMINAL CAVITY

LECTURER

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Nick received his veterinary degree from the University of Melbourne and worked for several years in mixed-animal and equine practices in Australia and the UK. He then returned to Melbourne to complete a PhD in equine endocrinology, followed by a residency training program in large animal internal medicine. Nick is a Senior Lecturer in Veterinary Biosciences and a Diplomate of the American College of Veterinary Internal Medicine. His research interests cover various aspects of equine health, including endocrinology, metabolism and clinical nutrition.

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INTENDED LEARNING OUTCOMES

At the end of this lecture, you should be able to:

- Describe the general design of the digestive system.
- Identify the regions of the abdomen.
- Describe the external and internal surface features of the oral and abdominal cavities.
- Describe the structure and function of the peritoneum.

KEY WORDS

Digestive system; digestive tract; alimentary canal; mouth; pharynx; abdomen; peritoneal cavity; peritoneum; mesentery; omentum.

LECTURE OVERVIEW

The digestive system includes the digestive tract and the accessory organs and glands. The function of the digestive system is to turn food into fuel by performing the following functions: securing, conducting and storing food; digestion and absorption of nutrients; and storage and disposal of wastes. The design of the digestive system in different species is adapted to suit different diets (e.g. carnivore, herbivore, omnivore). This lecture will provide an overview of the digestive system and abdominal cavity in animals.

FURTHER READING

Singh: Dyce, Sack & Wensing's *Textbook of Veterinary Anatomy*, 5th Ed. Elsevier, 2018.

Boyd: *Color Atlas of Clinical Anatomy of the Dog and Cat*, 2nd Ed. Mosby, 2001.

Hermanson: *Miller and Evans' Anatomy of the Dog*, 5th Ed. Elsevier1964.

Smallwood: *A Guided Tour of Veterinary Anatomy*, Saunders, 1992.