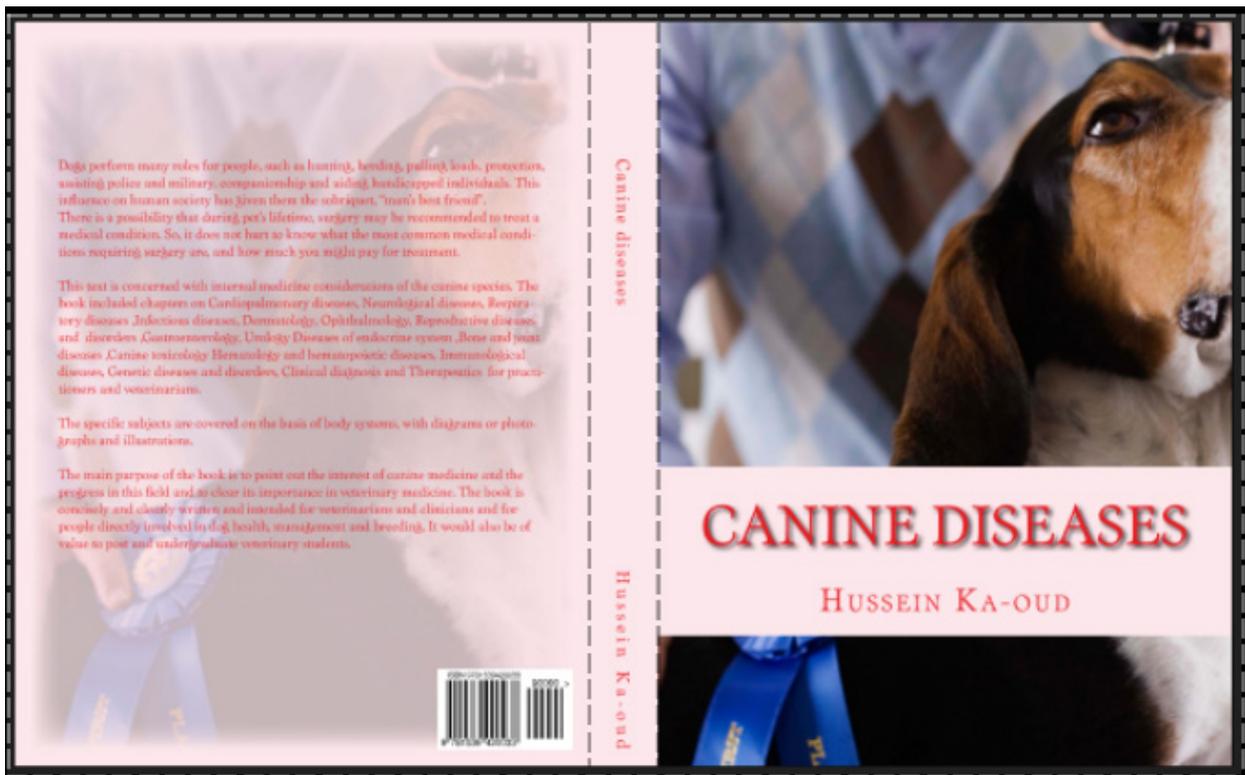


# Canine Diseases

## Diagnosis and Therapy



**Dr.Hussein Abdel-Hay Kaoud**

**Prof. Faculty of Vet. Medicine, Cairo University.**

**2016**

## **Preface**

Dogs perform many roles for people, such as hunting, herding, pulling loads, protection, assisting police and military, companionship and aiding handicapped individuals. This influence on human society has given them the sobriquet, "man's best friend".

The goal of veterinary medicine may be quite different in pets than in farm animals. In the former, situation is a bit like in human beings, and more and more complex operations are being performed, with sophisticated anesthesia techniques. In the latter, the cost of the surgical operation must not exceed the economic benefit in treating the illness.

There is a possibility that during pet's lifetime, surgery may be recommended to treat a medical condition. So, it does not hurt to know what the most common medical conditions requiring surgery are, and how much you might pay for treatment.

This text is concerned with internal medicine considerations of the canine species. The book included chapters on Cardiopulmonary diseases, Neurological diseases, Respiratory diseases, Infectious diseases, Dermatology, Ophthalmology, Reproductive diseases and disorders, Gastroenterology, Urology Diseases of endocrine system, Bone and joint diseases, Canine toxicology Hematology and hematopoietic diseases, Immunological diseases, Genetic diseases and disorders, Clinical diagnosis and Therapeutics for practitioners and veterinarians.

The specific subjects are covered on the basis of body systems, with diagrams or photographs and illustrations.

The main purpose of the book is to point out the interest of canine medicine and the progress in this field and to clear its importance in veterinary medicine. The book is concisely and clearly written and intended for veterinarians and clinicians and for people directly involved in dog health, management and breeding. It would also be of value to post and undergraduate veterinary students.

*Prof. Hussein A. Kaoud*

# Contents

**Preface 3**

**Introduction 7**

- 1. Cardiovascular diseases 9**
  - 2. Hematology and hematopoietic diseases 54**
  - 3. Neurological diseases 61**
  - 4. Urological diseases 91**
  - 5. Respiratory diseases 120**
  - 6. Gastroenterology 144**
  - 7. Diseases of endocrine system 192**
  - 8. Dermatology 216**
  - 9. Infectious diseases 239**
  - 10. Ophthalmology 290**
  - 11. Reproductive diseases and disorders 316**
  - 12. Skeletal and muscular disorders 328**
  - 13. Oncology in Dogs 353**
  - 14. Autoimmune Diseases in Dogs 363**
  - 15. Behavioral Problems 377**
  - 16. Health care of dogs 385**
- Glossary 407**

## Introduction

The origin of the domestic dog is not clear. Mitochondrial DNA evidence indicates that the dog diverged from a wolf-like canid either 27,000-40,000 years ago or 18,800–32,100 years ago, compared to Nuclear DNA evidence that points to divergence 11,000–16,000 years ago. These dates imply that the earliest dogs arose in the time of human hunter-gatherers and not agriculturists. Mitochondrial DNA evidence indicates that the dog, the gray wolf and the extinct Taymyr wolf diverged at around the same time. Modern dogs are most closely related to ancient wolf fossils that have been found in Europe than they are to modern gray wolves, with nearly all dog breeds' genetic closeness to the gray wolf due to admixture and several Arctic dog breeds with the Taymyr wolf of North Asia.

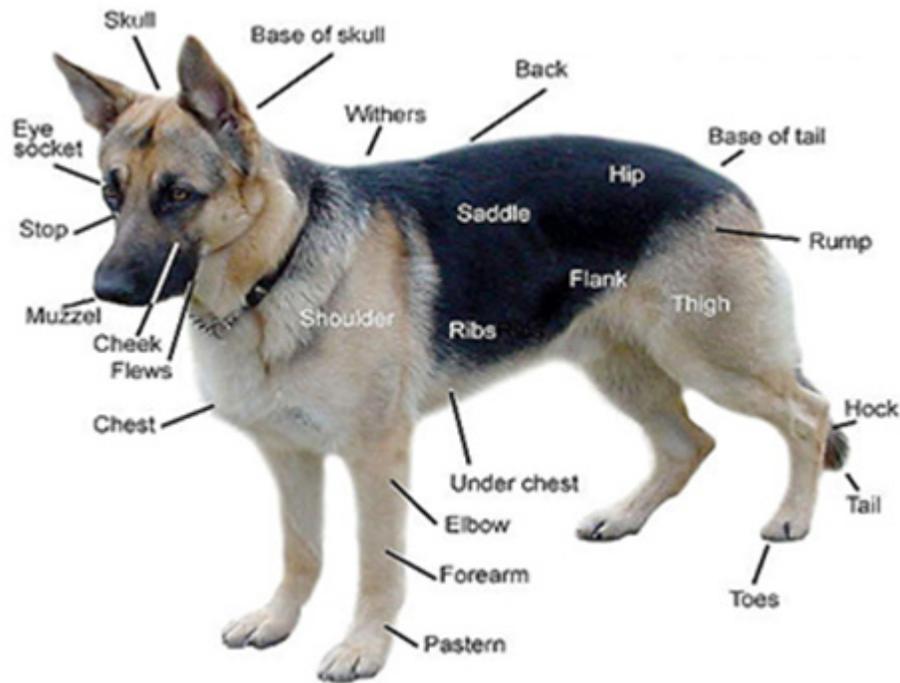


Fig. 1: Dog external anatomy.

Domestic dogs have been selectively bred for millennia for various behaviors, sensory capabilities, and physical attributes. Modern dog breeds show more variation in size, appearance, and behavior than any other domestic animal. Nevertheless, their morphology is based on that of their wild wolf ancestors. Dogs are predators and scavengers, and like many other predatory mammals, the dog has powerful muscles, fused wrist bones, a cardiovascular system that supports both sprinting and endurance, and teeth for catching and tearing.