

TABLE OF CONTENTS – Laser Surgery in Veterinary Medicine

Dedication and Acknowledgments

ABOUT THE EDITOR

Foreword

Preface

List of Contributors

Disclaimer

Part I The Science of Laser Surgery 1

1 Laser Physics and Equipment 3

Peter Vitruk

2 Understanding and Utilizing Power Density 14

Noel Berger

3 Laser–Tissue Interaction: Selecting a Laser for Surgery 22

Christopher J. Winkler

4 The Ideal Laser Scalpel 32

Peter Vitruk

5 Combining Laser Surgery with Laser Therapy (Photobiomodulation) 42

David S. Bradley

6 Laser Safety in the Operating Theater 52

Christopher J. Winkler

Part II Laser Surgery in Canines and Felines 61

7 Elective Laser Surgery Procedures 63

Paul Sessa and Andrew Brockfield

8 Oral Laser Surgery Procedures 84

Jan Bellows

9 Laser Surgery Procedures of the Nose and Throat 99

Ray A. Arza

10 Laser Surgery Procedures of the Ear 106

Louis N. Gotthelf

11 Periorbital and Eyelid Laser Surgery Procedures 116

Daniel M. Core

12 Ophthalmic Lasers for the Treatment of Glaucoma 129

Noelle La Croix and Jay Wayne

13 Dermatologic Laser Surgery Procedures 141

David Duclos

14 Urogenital and Perianal Laser Surgery Procedures 164

William E. Schultz

15 Oncological Laser Surgery Procedures 198

Devin Cunningham and F. A. (Tony) Mann

16 Laser Photodynamic Therapy Procedures 206

Katalin Kovács

17 Surgical Lasers in Minimally Invasive and Endoscopic Small Animal Procedures
217

David S. Sobel

18 Laser Neurosurgical Procedures 239

Gaemia Tracy

Part III Laser Surgery in Equines 245

19 Equine Laser Surgery Procedures 247

Lloyd P. Tate and Kathryn B. Tate

Part IV Laser Surgery in Exotics Species 265

20 Laser Surgery Procedures in Small Exotic Animals (Small Mammals, Reptiles,
and Avians) 267

Eva Hadzima, Maros Pazej, and Katherine Weston

21 Laser Surgery in Aquatic Animals (Sea Turtles) 292

Brooke M. Burkhalter and Terry M. Norton

Part V Integrating Surgical Lasers in Your Veterinary Practice 313

22 Tips and Tricks for Veterinary Laser Surgeons 315

Les "Laser Les" Lattin

23 Pain Management in Laser Surgery Procedures 320

Noel Berger

24 Laser Surgery in the Mobile Practice 324

Janine S. Dismukes

25 Economic Considerations for Laser Surgery 327

John C. Godbold, Jr

Part VI The Future of Lasers in Veterinary Medicine and Surgery 335

26 The Future of Lasers in Veterinary Medicine and Surgery 337

Christopher J. Winkler

Appendix A: Glossary 341

Appendix B: Certifying and Academic Laser Organizations 346

Appendix C: Tables of Laser Settings 347

Index 359.