

Table of contents

About the Companion Website viii

Contributors ix

Preface to the First Edition xi

Preface to the Second Edition xiii

Preface to the Third Edition xv

Preface to the Fourth Edition xvii

1. Presurgical Considerations 3

Dean A. Hendrickson, DVM, MS, DACVS

Preoperative Evaluation of the Patient 3

Surgical Judgment 4

Principles of Asepsis and Antisepsis 4

Surgical Classifications 4

Role of Antibiotics 5

Preoperative Planning 5

Preparation of the Surgical Site 5

Postoperative Infection 6

References 6

2. Anesthesia and Fluid Therapy 7

Khursheed Mama, DVM, DACVA

Anesthesia 7

Fluid Therapy 23

References 29

3. Surgical Instruments 33

Dean A. Hendrickson, DVM, MS, DACVS

Use of Surgical Instruments 33

Preparation of Instruments	38
General Surgical Instruments	39
Instruments Used Specifically in Large Animal Surgery	52

4. Suture Materials and Needles 61

Dean A. Hendrickson, DVM, MS, DACVS

Suture Materials	61
------------------	----

Needles	67
---------	----

References	69
------------	----

5. Knots and Ligatures 71

Dean A. Hendrickson, DVM, MS, DACVS

Principles of Knot Tying	71
--------------------------	----

Ligatures	73
-----------	----

References	76
------------	----

6. Suture Patterns 77

Dean A. Hendrickson, DVM, MS, DACVS

Basic Suture Patterns	77
-----------------------	----

Suture Patterns Used for Closure of Hollow Organs	83
---	----

Stent Bandages (Tie-Over Dressings)	88
-------------------------------------	----

Suture Patterns for Severed Tendons	88
-------------------------------------	----

References	91
------------	----

7. Principles of Wound Management and the Use of Drains 93

Dean A. Hendrickson, DVM, MS, DACVS

Wound Management	93
------------------	----

Methods of Closure and Healing	96
--------------------------------	----

Use of Drains	97
---------------	----

References	101
------------	-----

8. Reconstructive Surgery of Wounds 103

Dean A. Hendrickson, DVM, MS, DACVS

References 111

9. Equine Orthopedic Surgery 113

Dean A. Hendrickson, DVM, MS, DACVS

Medial Patellar Desmotomy 113

Lateral Digital Extensor Tenotomy 114

Inferior (Distal) Check Ligament Desmotomy 119

Superior Check Ligament Desmotomy (After Bramlage) 122

Superficial Digital Flexor Tenotomy 124

Deep Digital Flexor Tenotomy 126

Sectioning of the Palmar (or Plantar) Annular Ligament of the Fetlock 127

Palmar Digital Neurectomy 129

Amputation of the Splint (II and IV Metacarpal and Metatarsal) Bones 131

Arthroscopy of the Fetlock Joint and Removal of an Apical Sesamoid Chip Fracture 134

References 136

10. Equine Urogenital Surgery 139

Dean A. Hendrickson, DVM, MS, DACVS

Castration 139

Cryptorchidectomy by the Inguinal, Parainguinal, and Flank Approach 152

Laparoscopic Cryptorchidectomy 155

Caslick's Operation for Pneumovagina in the Mare 156

Urethroplasty by Caudal Relocation of the Transverse Fold 159

Cesarean Section in the Mare 160

Circumcision of the Penis (Reefing) 164

Amputation of the Penis 166

Aanes' Method of Repair of Third-Degree Perineal Laceration 169

References 174

11. Surgery of the Equine Upper Respiratory Tract 177

Dean A. Hendrickson, DVM, MS, DACVS

Tracheostomy 177

Laryngotomy, Laryngeal Ventriculectomy, and Ventriculocorpectomy 179

Partial Resection of the Soft Palate 183

Surgical Entry and Drainage of the Guttural Pouches 186

References 189

12. Equine Dental and Gastrointestinal Surgery 191

Dean A. Hendrickson, DVM, MS, DACVS

Repulsion of Cheek Teeth 191

Ventral Midline Laparotomy and Abdominal Exploration 196

Standing Flank Laparotomy 202

Umbilical Herniorrhaphy in the Foal 207

References 210

13. Bovine Gastrointestinal Surgery 211

A. N. Baird, DVM, MS, DACVS

Principles of Laparotomy 211

Flank Laparotomy and Abdominal Exploration 212

Rumenotomy 215

Rumenostomy (Rumenal Fistulation) 219

Surgical Corrections of Abomasal Displacements and Torsion 221

Surgical Correction of Cecal Dilatation/Volvulus 231

Small Intestinal Resection and Anastomosis 231

References 232

14. Bovine Urogenital Surgery 235

A. N. Baird, DVM, MS, DACVS

Calf Castration 235

Urethrostomy	236
Hematoma Evacuation of the Bovine Penis	241
Preputial Resection and Anastomosis in the Bull	245
Surgical Techniques for Teaser Bull Preparation	248
Inguinal Herniorrhaphy in the Mature Bull	252
Unilateral Castration	257
Cesarean Section in the Cow	258
Retention Suturing of the Bovine Vulva (Buhner's Method)	265
Cervicopexy for Vaginal Prolapse (after Winkler)	266
References	270

15. Bovine General Surgery 273

A. N. Baird, DVM, MS, DACVS

Digit Amputation	273
Digit Amputation via Disarticulation	274
Eye Enucleation	276
Cosmetic Dehorning	277
Rib Resection and Pericardiotomy	280
Repair of Teat Lacerations	283
Third Eyelid Resection	288
Tracheotomy	288
Umbilical Surgery	289
References	290

16. Small Ruminant Surgery 293

A. N. Baird, DVM, MS, DACVS

Dehorning the Mature Goat	293
Disbudding the Young Goat	295

Obstructive Urolithiasis	296
Mastectomy	297
Vasectomy	298
Cesarean Section	299
Rectal Prolapse Resection in Small Ruminants	300
References	301

17. Camelid Surgery 303

A. N. Baird, DVM, MS, DACVS

Castration of the Llama	303
-------------------------	-----

Cesarean Section in the Camelid	304
---------------------------------	-----

Tooth Removal in the Llama	305
----------------------------	-----

References	309
------------	-----

18. Swine Surgery 311

A. N. Baird, DVM, MS, DACVS

Castration of the Piglet	311
--------------------------	-----

Inguinal Herniorrhaphy in the Piglet	312
--------------------------------------	-----

Cryptorchid Castration of Piglets	314
-----------------------------------	-----

Preputial Diverticulum Ablation	316
---------------------------------	-----

Cesarean Section in the Sow	317
-----------------------------	-----

Ovariohysterectomy in the Pot-Bellied Pig	319
---	-----

Rectal Prolapse Ring Placement	319
--------------------------------	-----

References	320
------------	-----

Index	323
-------	-----