

Second Edition

Hugues Beaufrère
Jennifer E. Graham



BLACKWELL'S FIVE-MINUTE VETERINARY CONSULT AVIAN



Includes
client education
handouts,
algorithms, and
procedure guides
on a companion
website

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BLACKWELL'S FIVE-MINUTE VETERINARY CONSULT

AVIAN

Second Edition

Edited by

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CONTENTS

Contributors	xvi
Preface	xix
Acknowledgements	xx
About the Companion Website	xxi

TOPICS	
Adenoviruses	1
Adrenal Gland Diseases	4
Aggression see Problem Behaviors: Aggression, Biting and Screaming	(374)
Air Sac Mites	8
Air Sac Rupture	10
Airborne toxicosis see Toxicosis (Airborne)	(434)
Algal Biotoxins	13
Amyloidosis	15
Anemia	17
Angel Wing	20
Angular Limb Deformity (Splay Leg)	22
Anorexia	24
Anticoagulant rodenticide toxicosis see Toxicosis (Anticoagulant Rodenticides)	(436)
Arboviruses see Eastern and Western Equine Encephalitis Viruses; Usutu Virus;	(145)
West Nile Virus	(478)
Arthritis see Joint Diseases	(241)
Ascites	27
Aspergillosis	30
Aspiration Pneumonia	33
Atherosclerosis	36
Atoxoplasmosis see Coccidiosis (Systemic)	(104)
Avian Influenza	40
Avian Vacuolar Myelinopathy	43
Avocado poisoning see Toxins (Ingested, Gastrointestinal)	(448)
Avulaviruses see Othoavulaviruses	(323)
Baylisascaris see Neural Larva Migrans	(300)
Beak Injuries	45
Beak Malocclusion (Lateral Beak Deformity)	48
Beak Malocclusion (Mandibular Prognathism)	51
Behavior see Problem Behaviors: Aggression, Biting and Screaming	(374)
Bite wounds see Wounds (Including Bite Wounds, Predator Attacks)	(481)



Client education handouts are available at www.wiley.com/go/Beaufre/2e for you to download and use in practice

Bordetellosis	53
Bornaviral Disease (Aquatic Birds)	56
Bornaviral Disease (Psittaciformes)	58
Botulism	62
Brachial Plexus Injury	64
Brain tumors see Neoplasia (Neurological)	(305)
Bumblefoot see Pododermatitis	(358)
Bursa of Fabricius Diseases	66
Campylobacteriosis	70
Candidiasis	72
Capture Myopathy (Exertional Rhabdomyolysis)	74
Cardiac disease see Congestive Heart Failure, Myocardial Diseases	(114)
Carbamate toxicity see Toxicosis (Environmental, Pesticides)	(439)
Central nervous system tumors see Neoplasia (Neurological)	(290)
Cere and Skin Color Changes	77
Cervicocephalic diverticulum rupture see Air Sac Rupture	(10)
Chlamydiosis	79
Cholera see Pasteurellosis	(345)
Chronic Egg Laying	82
Circovirus (Psittacines)	85
Circoviruses (Non-Psittacine Birds)	87
Cloacal bursa diseases see Bursa of Fabricius Diseases	(66)
Cloacal Diseases	89
Cloacal Prolapse	92
Clostridiosis	95
Coagulopathies and Coagulation	98
Coccidiosis (Intestinal)	101
Coccidiosis (Systemic)	104
Coelomic Distension	107
Colibacillosis	111
Congestive Heart Failure	114
Conjunctivitis see Ocular Lesions	(313)
Constricted toe see Toe and Nails (Diseases of)	(426)
Coxiellosis	116
Crop Burn	118
Crop stasis see Ileus (Functional Gastrointestinal, Crop Stasis)	(233)
Cryptococciosis	120
Cryptosporidiosis	122
Degenerative joint disease see Joint Diseases	(241)
Dehydration [see also Hypotension]	125
Dermatitis	127
Diabetes Insipidus	130



Client education handouts are available at www.wiley.com/go/Beaufrere/2e for you to download and use in practice

Diabetes Mellitus and Hyperglycemia	132
Diarrhea	134
Discospondylitis	136
Dyslipidemia/Hyperlipidemia	139
Dyspnea <i>see</i> Respiratory Distress	(386)
Dystocia and Egg Binding	142
Eastern and Western Equine Encephalitis Viruses (EEV/WEEV)	145
Ectoparasites (Mites)	148
Ectoparasites (Ticks, Lice, Dipterans)	151
Egg Abnormalities	154
Egg binding <i>see</i> Dystocia and Egg Binding	(142)
Egg Yolk and Reproductive Coelomitis	158
Electrocution	160
Emaciation	162
Embryonic death/hatching failure <i>see</i> Egg Abnormalities	(154)
Endoparasites <i>see</i> Helminthiasis; Coccidiosis; Neural Larva Migrans	(300)
Enteritis and Gastritis	165
Enterococcal spondylitis <i>see</i> Discospondylitis	(136)
Exertional rhabdomyolysis <i>see</i> Capture Myopathy	(74)
Feather Cyst	168
Feather-Damaging and Self-Injurious Behavior	170
Feather Disorders	174
Flagellate Enteritis [<i>see also</i> Trichomoniasis]	177
Foreign Bodies (Gastrointestinal)	180
Foreign Bodies (respiratory) <i>see</i> Tracheal Diseases	(457)
Fractures	183
Frostbite <i>see</i> Hypothermia	(231)
Gastrointestinal foreign bodies <i>see</i> Foreign Bodies (Gastrointestinal)	(180)
Gastritis <i>see</i> Enteritis and Gastritis	(165)
Giardiasis <i>see</i> Flagellate Enteritis	(177)
Goiter <i>see</i> Thyroid Diseases	(424)
Gout <i>see</i> Renal Disease and Hyperuricemia	(380)
Head trauma <i>see</i> Neurologic Trauma	(305)
Heart failure <i>see</i> Congestive Heart Failure	(114)
Heat Stroke	186
Heavy metal toxicity <i>see</i> Toxicosis (Heavy Metals)	(443)
Helminthiasis (Body Cavity and Cardiovascular)	188
Helminthiasis (Gastrointestinal)	190
Helminthiasis (Neurological) <i>see</i> Neural Larva Migrans	(300)
Helminthiasis (Respiratory)	193
Hemochromatosis <i>see</i> Iron Storage Disease	(239)
Hemoparasites	196



Client education handouts are available at www.wiley.com/go/Beaufreire/2e for you to download and use in practice

Hemorrhage	199
Hepatic Lipidosis	203
Hepatitis see Liver Disease	(250)
Hernia/Pseudohernia	206
Herpesvirus (chicken) see Marek's Disease;	(261)
Respiratory Infections of Backyard Chickens	(389)
Herpesvirus (Columbid Herpesvirus 1 in Pigeons and Raptors)	208
Herpesvirus (Duck Viral Enteritis)	210
Herpesvirus (Passerine Birds)	213
Herpesvirus (Psittacid Herpesviruses)	215
Histomoniasis	218
Horner Syndrome	220
Hypercholesterolemia see Dyslipidemia	(139)
Hyperglycemia see Diabetes Mellitus and Hyperglycemia	(132)
Hyperlipidemia see Dyslipidemia/Hyperlipidemia	(139)
Hyperparathyroidism see Metabolic Bone Disease	(263)
Hyperthermia see Heat Stroke	(186)
Hyperuricemia	222
Hypocalcemia (and Hypomagnesemia)	225
Hypotension and Hypovolemia	228
Hypothermia	231
Hypothyroidism see Thyroid Diseases	(424)
Hypovitaminosis A see Nutritional Imbalances	(308)
Ileus (Functional Gastrointestinal, Crop Stasis)	233
Infectious bronchitis see Respiratory Infections of Backyard Chickens	(389)
Infectious laryngotracheitis see Respiratory Infections of Backyard Chickens	(389)
Infertility	236
Ingested toxicosis see Toxicosis (Ingested)	(448)
Ingluvial hypomotility see Ileus (Functional Gastrointestinal, Crop Stasis)	(233)
Iron Storage Disease	239
Joint Diseases	241
Knemidocoptic mites see Ectoparasites (Mites)	(148)
Lameness	243
Lead see Toxicosis (Heavy Metals)	(443)
Leukemia see Neoplasia	(284)
Leukocytosis	247
Leukosis virus (avian) see Retroviruses in Galliformes	(393)
Lice see Ectoparasites (Ticks, Lice, Dipterans)	(151)
Lipoma see Neoplasia (Integument)	(284)
Liver Disease	250
Lung Diseases [see also Pneumonia; Toxicosis (Airborne and Respiratory Distress)]	253
Luxations	256
Lymphosarcoma see Neoplasia (Lymphoproliferative)	(286)



Client education handouts are available at www.wiley.com/go/Beaufrere/2e for you to download and use in practice

<i>Macrorhabdus Ornithogaster</i>	259
Malaria see Hemoparasites	(196)
Malnutrition see Emaciation	(162)
Mandibular prognathism see Beak Malocclusion (Mandibular Prognathism)	(51)
Marek's Disease	261
Metabolic Bone Disease	263
Microsporidiosis/Encephalitozoon	266
Mites see Ectoparasites (Mites)	(148)
Mycobacteriosis	268
Mycoplasmosis	271
Mycotoxicosis	274
Myiasis	277
Myocardial Diseases	279
Nails (diseases of) see Toes and Nails (Diseases of)	(426)
Neoplasia (Gastrointestinal and Hepatic)	282
Neoplasia (Integument)	284
Neoplasia (Lymphoproliferative)	286
Neoplasia (Neurologic)	290
Neoplasia (Renal)	293
Neoplasia (Reproductive)	295
Neoplasia (Respiratory)	298
Neural Larva Migrans	300
Neurologic (Non-Traumatic Diseases)	302
Neurologic (Trauma)	305
Newcastle disease see Orthoavulaviruses	(323)
Nutritional Imbalances [see also Hypovitaminosis A]	308
Obesity	311
Ocular Lesions	313
Oil Exposure	316
Oral Plaques	320
Organophosphate toxicity see Toxicosis (Environmental, Pesticides)	(439)
Orthoavulaviruses	323
Osteomyelosclerosis see Polyostotic Hyperostosis	(367)
Otitis	327
Ovarian Diseases	330
Overgrown beak see Beak Malocclusion	(48)
Oviductal Diseases	334
Pacheco's disease see Herpesviruses (Psittacids)	(215)
Pain	337
Pancreatic Diseases	340
Papillomatosis (Cutaneous)	343
Papillomatosis, internal see Herpesvirus	(208)
Paramyxoviruses see Orthoavulaviruses	(323)



Client education handouts are available at www.wiley.com/go/Beaufrere/2e for you to download and use in practice

Parasites (external) see Ectoparasites	(148)
Parasites (internal) see Helminthiasis; Coccidiosis; Neural Larva Migrans	(300)
Pasteurellosis	345
Patagium Diseases	347
Perosis/Slipped Tendon	349
Phallus Prolapse	351
Pituitary tumors see Neoplasia (Neurological)	(290)
Plant toxins see Toxicosis (Ingested, Gastrointestinal)	(448)
Pneumonia	354
Pododermatitis	358
Polydipsia	362
Polyfolliculitis see Dermatitis	(127)
Polyomavirus	365
Polyostotic Hyperostosis	367
Polyuria	369
Poxvirus	371
Predator attack see Wounds (Including Bite Wounds, Predator Attacks)	(481)
Problem Behaviors: Aggression, Biting and Screaming	374
Prolapses (see Cloacal Prolapse)	(92)
Proventricular Dilatation Disease (see Bornaviral Diseases)	(56)
Proventricular diseases (see Enteritis and Gastritis)	(165)
Psittacine beak and feather disease (see Circoviruses)	(85)
PTFE toxicosis see Toxicosis (Environmental/Pesticides)	(439)
Regurgitation and Vomiting	378
Renal Diseases	380
Reovirus	384
Respiratory Distress	386
Respiratory foreign bodies see Tracheal Diseases	(457)
Respiratory Infections of Backyard Chickens [see also Mycoplasmosis]	389
Retroviruses in Galliformes	393
Rhinitis and Sinusitis	395
Rotavirus	398
Salmonellosis	400
Salpingitis see Oviductal Diseases	(334)
Sarcocystosis	402
Scissors beak see Beak Malocclusion (Lateral Beak Deformity)	(48)
Seizures	405
Self-injurious behavior see Feather-Damaging and Self-Injurious Behavior	(170)
Sepsis	408
Sick-Bird Syndrome	411
Smoke inhalation injury see Toxicosis (Airborne)	(434)
Spinal trauma see Neurologic Trauma	(305)
Spirochete Infection	413



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Spironucleus see Flagellate (Intestinal)	(177)
Splay Leg see Angular Limb Deformities	(22)
Spleen (Diseases of)	415
Squamous Cell Carcinoma see Neoplasia (Integument)	(284)
Squamous metaplasia see Hypovitaminosis A	(308)
Stroke see Atherosclerosis	(36)
Syringeal disease see Tracheal and Syringeal Diseases	(457)
Tendinitis and Tenosynovitis	418
Thymus (Diseases of)	422
Thyroid Diseases	424
Toe and Nail Diseases	426
Togaviruses see Eastern and Western Equine Encephalitis Viruses	(145)
Tongue Diseases	431
Toxicosis (Airborne)	434
Toxicosis (Anticoagulant Rodenticide)	436
Toxicosis (Environmental, Pesticides)	439
Toxicicosis (Heavy Metals)	443
Toxicosis (Iatrogenic)	445
Toxicosis (Ingested, Gastrointestinal)	448
Toxicosis (Vitamin D)	452
Toxoplasmosis	454
Tracheal and Syringeal Diseases	457
Trauma [see also Neurologic Trauma]	461
Trichomoniasis	465
Tumors see Neoplasia	(284)
Undigested Food in Droppings	468
Urate and Fecal Discoloration	471
Uropygial Gland Disease	474
Usutu Virus	476
Viral diseases see individual named viral diseases	(56)
Vitamin D toxicosis see Toxicosis (Vitamin D)	(452)
West Nile Virus	478
Wing droop see Brachial Plexus Avulsion; Fractures; Luxations	(64)
Wounds (Including Bite Wounds, Predator Attacks)	481
Xanthoma/Xanthogranulomatosis	484
Yersiniosis	486
Yolk Sac Retention and Infection	488
Young pigeon syndrome see Circovirus	(85)
Zinc see Toxicosis (Heavy Metals)	(443)
Appendix I: Common Dosages for Birds	490
Appendix II: Avian Hematology Reference Values	497
Appendix III: Laboratory Testing (USA)	499
Appendix IV: Viral Diseases of Concern	504



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Appendix V: Selected Zoonotic Diseases of Concern and Personal Protection	511
Appendix VI: Common Avian Toxins and Their Clinical Signs	513
Appendix VII: Avian Taxonomy	516
Appendix VIII: Clinical Algorithms	523
Algorithm 1: Sick-Bird Syndrome	523
Algorithm 2: Diarrhea	524
Algorithm 3: Regurgitation/Vomiting	525
Algorithm 4: Respiratory Distress	526
Algorithm 5: Coelomic Distension	527
Algorithm 6: Egg Binding	528
Algorithm 7: Anemia	529
Algorithm 8: Oropharyngeal Lesions	530
Algorithm 9: Neurologic Signs	531
Algorithm 10: Polydipsia	532
Algorithm 11: Polyuria	533
Algorithm 12: Feather Loss	534
Algorithm 13: Lameness	535
Algorithm 14: Hyperuricemia	536
Algorithm 15: Hepatopathy	537
Algorithm 16: Wing Droop	538
Algorithm 17: Respiratory Distress in Chickens	539
Algorithm 18: Cloacal Prolapse	540
Index	541

ONLINE MATERIALS

Procedures

- Air Sac Cannula
- Beak and Nail Trimming
- Blood Transfusion
- Bone Marrow Aspiration
- Choanal Swab
- Cloacal Swab
- Coelomocentesis
- Conjunctival Swab
- Deslorelin Implant
- Elizabethan Collar
- Fecal Wet Mount and Gram Stain
- Figure of Eight Bandage
- Handling and Restraint
- Indirect Blood Pressure Monitoring
- Ingluvial gavage



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- Intramuscular Injection
- Intraosseous Catheter
- Intravenous Catheter
- Microchip Placement
- Nasal Flush
- Oral medications
- Sinus Aspiration
- Subcutaneous injection
- Tracheal Swab or Wash
- Venipuncture
- Ventplasty
- Wing Trimming

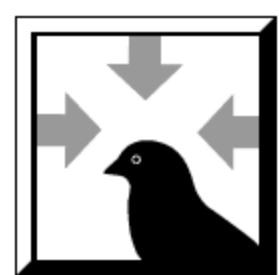
Client Education Handouts

- Airborne Toxins
- Angel Wing
- Arthritis
- Aspergillosis
- Avocado/Plant Toxins
- Bornaviral Disease (Psittaciformes)
- Chlamydiosis
- Chronic Egg Laying
- Cloacal Disease
- Cystic Ovarian Disease
- Feather-Damaging Behavior
- Heavy-Metal Toxicity
- Hypocalcemia and Hypomagnesemia
- Liver Disease
- Macrorhabdosis
- Nutritional Deficiencies
- Ovarian Neoplasia
- Overgrown Beak and Nails
- Obesity
- Oophoritis
- Pododermatitis (Bumblefoot)
- Polyomavirus in Psittacines
- Regurgitation and Vomiting
- Renal Disease
- Rhinitis and Sinusitis
- Sick-Bird Syndrome
- Ten Things Your Parrot Wants You to Know about Behavior
- Trauma



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FEATHER-DAMAGING AND SELF-INJURIOUS BEHAVIOR



BASICS

DEFINITION

Self-injurious behavior includes all behavior in which the bird damages its own tissues, typically by using its beak. In case of feather-damaging behavior, the self-inflicted damage is directed to the feathers and can involve chewing, biting, plucking, and/or fraying of coverts, down feathers, remiges, and rectrices. Typically, the feathers of the head and crest remain unaffected, as these are inaccessible to the bird's beak. In case of self-mutilation or automutilation, the skin and/or deeper structures are also affected. While automutilation and feather-damaging behavior are both classified among self-injurious behaviors and some overlap in causes may exist, the behaviors should be considered as two separate entities.

PATHOPHYSIOLOGY

In general, three underlying pathophysiological mechanisms should be taken into consideration for self-injurious behavior: (1) Maladaptive behavior, resulting from attempts of the animal to cope with a suboptimal or inadequate environment, which is lacking the appropriate stimuli needed and/or in which aversive stimuli or stressors are present. (2) Malfunctional behavior, resulting from an abnormal psychology, brain development, or altered neurochemistry, which may have developed as a result of the bird's living conditions, particularly in early life. (3) Behavior performed to alleviate pain, pruritus, irritation, or other type of discomfort resulting from an underlying medical (physical) problem.

SYSTEMS AFFECTED

Behavioral: Birds may spend more time on preening and/or preen more intensively, which results in damaged feathers and/or skin; other problem behaviors including anxiety and fear-related behavior, excessive vocalization, sexual behavior, or abnormal repetitive behaviors (such as stereotypic behavior) may also be seen.

Skin/exocrine: Feathers may be pulled and/or frayed resulting in generalized or patchy alopecia in areas that are accessible to the bird's beak. Covert and/or down feathers are the main target, although remiges and/or rectrices may be targeted as well. Skin damage and/or (secondary) infections may also be present.

Endocrine/metabolic: Metabolic needs may be increased due to lack of insulation and decreased thermoregulatory abilities.

Hemic/lymphatic/immune: Blood loss may occur in birds with self-injurious behavior.

GENETICS

Genetic factors are thought to be involved because of species predilections. Results of a study in feather-damaging Amazon parrots demonstrated high heritability estimates, thereby supporting the hypothesis that a genetic basis may indeed exist.

INCIDENCE/PREVALENCE

Feather-damaging behavior is estimated to occur in 10–15% of captive parrots.

GEOGRAPHIC DISTRIBUTION

N/A

SIGNALMENT

Species predilections: Although feather-damaging behavior may occur in any parrot species, grey parrots (*Psittacus erithacus*), Eclectus parrots (*Eclectus roratus*), cockatoos (*Cacatua* spp.) and conures (*Pyrrhura* spp.) appear particularly prone. The condition is seemingly less common in budgerigars (*Melopsittacus* spp.). Aside from parrots, the condition may also be observed in other bird species, including birds of prey, of which the Harris hawk (*Parabuteo unicinctus*) is noted as a highly susceptible species. Similar to feather-damaging behavior, automutilation can occur in any species, but specific species predilections have been associated with specific mutilation syndromes. For example, (ventral) propatagial mutilation is commonly observed in grey parrots; sternal mutilation is commonly seen in cockatoos, particularly the umbrella (*Cacatua alba*), rose-breasted (*Eolophus roseicapilla*), and Moluccan cockatoo (*Cacatua moluccensis*); wing-tip mutilation is common in cockatiels (*Nymphicus hollandicus*); lovebirds (*Agapornis* spp.) are predisposed to axillary and tail-base mutilation; and Amazon parrots (*Amazona* spp.) and monk parakeets (*Myiopsitta monachus*) are prone to mutilate the feet and neck or chest.

Mean age and range: Although feather-damaging behavior may occur at any age, it has been suggested that the age of onset lies around the time when parrots become sexually mature. With increasing age, the likelihood of a parrot displaying feather-damaging behavior also increases.

Predominant sex: Feather-damaging may occur both in male and female parrots, with a suggested predilection for the female sex.

SIGNS

General Comments

Feather-damaging behavior is usually self-inflicted, but in some cases it can be directed to cage mates or nestlings. Severity of self-injurious behavior may vary from mild or localized feather damage or alopecia to severe forms with generalized feather damage, alopecia and/or self-mutilation.

Historical Findings

The most noticeable sign in birds with feather-damaging or self-injurious behavior is the presence of featherless areas and/or skin damage. Owners may note the bird plucking, biting or pulling its feathers or damaging its skin, but the behavior may be difficult to distinguish from normal preening and may also occur when the owner is not present. Extensive history taking is needed to identify potential underlying medical and/or behavioral causes, and should include information about the self-injurious behavior (onset, duration, clinical course, conditions under which it occurs), possible other behavior or medical problems, and the bird's general condition, as well as a detailed description of the bird's living environment (e.g. housing, enrichment, nutrition) and prior history (incl. rearing conditions).

Physical Examination Findings

Presence of featherless areas and/or damage to the feathers (fraying, chewing) and/or skin. Feathers are mainly plucked in the easy accessible regions of the neck, chest, flank, inner thigh, and ventral wing surface; feathers of the head and crest are typically unaffected as these are inaccessible to the bird's beak. Contour and down feathers are usually affected, but some birds may also damage the tail and flight feathers. In some birds with skin damage, secondary infections and/or hemorrhage may be present. Location, extent, and type of feather and/or skin damage, as well as any other abnormalities found during the physical examination should be noted, as these may provide clues towards the potential underlying cause, thereby emphasizing the importance of conducting a thorough and systematic hands-on examination.

CAUSES

Numerous causes for feather damaging and/or automutilation have been reported. However, a definitive causation is not always clear or unambiguous. In essence, any disease or condition causing pain, pruritis or other type of discomfort could initiate self-injurious behavior.

Underlying medical conditions: Some medical underlying diseases leading to self-injurious behavior include ecto- and endoparasites (e.g. *Knemidocoptes*, feather or quill mites, lice, *Giardia*, *Spirotruncus*, protozoal infection, particularly in cockatiels); bacterial or fungal dermatitis and/or folliculitis (including *Staphylococcus*, *Aspergillus*, *Candida*, *Malassezia* spp.); viral infections such as polyomavirus, PBFD (circovirus) and bornavirus; infectious skin and/or feather disease (bacterial, fungal, viral). Skin neoplasia (e.g. xanthoma, lipoma, squamous cell carcinoma). Nutritional deficiencies (e.g. hypovitaminosis A) and/or dietary imbalances. Low humidity levels, lack of

selective serotonin reuptake inhibitors (SSRI), 376, 407

self-injurious behavior

- feather cyst, 169
- feather-damaging, 170–173
- hemorrhage, 199
- patagium diseases, 347
- renal diseases, 380
- trauma, 461–462
- uropygial gland disease, 474
- West Nile virus, 479
- xanthoma/xanthogranulomatosis, 484

sepsis, 408–410

- lymphoproliferative neoplasia, 286
- septicemia, 483
- septicemic pox, 371–373
- septicemic shock, 410
- serology

 - avian influenza, 41
 - bornaviral disease, 56
 - chlamydiosis, 79

- sexual behavior, 92–93
- shaping, 375
- shell gland prolapse, 92
- Siadenovirus* spp., 1
- sick-bird syndrome, 411–412

 - clinical algorithm, 523
 - liver disease, 250

- sinus aspiration and lavage, 396
- sinusitis, 395–397
- skin color changes, 77–78
- slipped tendon, 349–350
- small intestinal prolapse, 92
- smoke inhalation, 434–435
- socioenvironmental factors

 - aggression, biting, and screaming, 374–377
 - airborne toxicosis, 434–435
 - feather-damaging, 171, 173
 - flagellate enteritis, 178
 - gastrointestinal helminthiasis, 190
 - hepatic lipidosis, 203
 - histomoniasis, 218
 - infertility, 236–237
 - lung diseases, 253
 - mycotoxicosis, 274–276
 - obesity, 311–312
 - oil exposure, 318–319
 - pain, 337
 - pasteurellosis, 345–346
 - pneumonia, 354
 - pododermatitis, 358–360
 - regurgitation and vomiting, 378
 - renal diseases, 381
 - respiratory infections of backyard chickens, 389–392
 - retroviruses in Galliformes, 393–394
 - rhinitis and sinusitis, 395–397
 - rotavirus, 398
 - sepsis, 408
 - thymus diseases, 423
 - toe and nail diseases, 429
 - toxoplasmosis, 454–455

trichomoniasis, 465–466

- undigested food in droppings, 469–470
- wound management, 481–483

sodium benzoate, 260

sodium bicarbonate, 75–76

spinal trauma, 462

- discospondylitis, 137

spirochete infection, 413–414

spironucleosis

- enteritis and gastritis, 165
- flagellate enteritis, 177–178

splay leg *see* angular limb deformity

spleen diseases, 415–417

splenomegaly

- adenoviruses, 2
- chlamydiosis, 79
- hemoparasites, 197
- myocardial diseases, 279
- passerid herpesvirus-1, 213
- reovirus, 384
- sepsis, 409
- toxoplasmosis, 454
- yersiniosis, 486

squamous cell carcinoma (SCC)

- gastrointestinal and hepatic neoplasia, 282–283
- integumental neoplasia, 284
- respiratory neoplasia, 298

Staphylococcus spp., 136–137

statins

- atherosclerosis, 38
- dyslipidemia/hyperlipidemia, 140
- neurologic disorders, 303

Sternostoma tracheacolum, 8

straw feather disease, 174

Streptococcus spp., 137

stress-associated immune depression, 422

subcutaneous emphysema, air sac rupture, 10–11

sudden/unexpected death

- adenoviruses, 1
- duck enteritis virus, 210
- myocardial diseases, 279
- passerid herpesvirus-1, 213
- pasteurellosis, 345
- psittacid herpesviruses, 215
- reproductive neoplasia, 296–297
- usutu virus, 476

sulfonamides, 105–106

superficial chronic ulcerative dermatitis (SCUD), 347

syncope, 405–406

syringeal diseases, 457–460

syringe-feeding, 25

systemic coccidiosis, 104–106

T

T-2 toxin, 422

T-cell lymphocytic leukemia, 288

temporary tarsorrhaphy, 314

tendinitis and tenosynovitis, 418–421

tendonorrhaphy, 349

tension band technique, 49, 52

teratoma, 291

testicular neoplasia, 295–297

- lameness, 245

thermal trauma, 77–78

thermography

- discospondylitis, 137
- electrocution, 160–161
- lameness, 244

thiamine supplementation, 164

thrombocytes, 99

thrombocytopenia, 98

thymus diseases, 422–423

thyroid diseases, 424–425

- thyroid hyperplasia, 424–425
- thyroid neoplasia, 424–425

ticks, 151–153

toe and nail diseases, 426–430

- cere and skin color changes, 77
- tongue diseases, 431–433

toxoplasmosis, 454–456

tracheal diseases, 457–460

tracheal neoplasia, 457

tracheoscopy, 458–459

tracheotomy, 458–459

traditional water deprivation test, 363

transfrontal pin and tension band, 49

trauma, 461–464

- air sac rupture, 10
- anemia, 17
- angular limb deformity, 22
- beak injuries, 45–46
- brachial plexus injury, 64–65
- cere and skin color changes, 77–78
- cutaneous papillomatosis, 343
- discospondylitis, 137
- egg abnormalities, 154, 156
- electrocution, 160–161
- emaciation, 162
- feather-damaging, 171–172
- feather disorders, 174
- fractures, 183–185
- gastrointestinal foreign bodies, 181
- hemorrhage, 199
- hernia/pseudohernia, 206
- Horner syndrome, 220–221
- hypotension and hypovolemia, 228
- joint diseases, 241
- lameness, 243–244
- luxations, 256
- myiasis, 277
- neurologic disorders, 305–307
- patagium diseases, 347
- phallus prolapse, 351
- pododermatitis, 358–360
- renal diseases, 381
- seizures, 405
- tendinitis and tenosynovitis, 418
- toe and nail diseases, 426–428
- tracheal and syringeal diseases, 457
- uropygial gland disease, 474–475
- wound management, 481–483