

Table of Contents

Chapter 1 Anatomy	1
Chapter 2 Growth, Development, and Senescence	8
Embryology of the Eye 8	Growth and Development, 12
Pathology of Congenital Abnormalities 12	Aging Changes in the Eye 13
Chapter 3 Examination	14
Routine Eye Examination 14	
Physical Examination of the Eye by the General Physician 19	
Visual Acuity 19	Ophthalmoscopic Examination 20
External Ocular Structures 19	Peripheral Field Tests 21
Pupils 20	Tonometry 21
Position of the Eyes 20	
Special Examinations by the Ophthalmologist 22	
Biomicroscopy 22	Examinations for Disorders of the
Visual Field Examination 23	Retina 33
Multiple Pattern Field Screening 24	Examination for Macular Function 34
Tonometry 25	Examination for Disorders of the
Examinations for Corneal and	Globe 35
Conjunctival Disease 27	Examination for Disorders of
Examinations for Glaucoma 29	Ocular Function 38
Examinations for Disorders of the	Test for Malingering 39
Lacrimal Apparatus 31	
Chapter 4 Principles of Management of Common Ocular Disorders	40
Office Equipment and Supplies 40	
History and Physical Examination 40	
Bacteriologic and Microscopic Examination 41	
Treatment of Specific Eye Conditions 42	
Lids 42	Lens 45
Conjunctiva 43	Optic Nerve 45
Cornea 43	Strabismus 45
Uveal Tract 44	Glaucoma 46
Vitreous 44	Trauma 46
Retina 44	
Ocular Emergencies 47	
Principles of Antibiotic and Chemotherapeutic Treatment of Ocular Infections 49	
Common Technics Used in the Treatment of Ocular Disorders 50	
Common Pitfalls to Be Avoided in the Management of Ocular Disorders 51	
Chapter 5 Lids and Lacrimal Apparatus	53
The Eyelids 53	
Infections and Inflammations of the Eyelids 54	
Hordeolum 54	Blepharitis 56
Chalazion 55	Meibomianitis 56
Positional Defects of the Eyelids 57	
Entropion 57	Ectropion 57
Anatomic Deformities of the Eyelids 58	
Blepharochalasis 58	Blepharospasm 58
Epicanthus 58	
The Lacrimal Apparatus 59	
Infections of the Lacrimal Apparatus 60	
Dacryocystitis 60	Dacryoadenitis 62
Canaliculitis 61	
Chapter 6 Conjunctiva	63
Conjunctivitis 64	
Classification 65	
Bacterial Conjunctivitis 67	

Chapter 6 Conjunctiva (Cont'd.)	
Conjunctivitis (Cont'd.)	
Viral Conjunctivitis 69	Herpes Simplex Conjunctivitis 73
Trachoma 71	Newcastle Disease Conjunctivitis 74
Adenovirus Infection 72	Molluscum Contagiosum Conjunctivitis 74
Inclusion Conjunctivitis 73	Lymphogranuloma Venereum Conjunctivitis 74
Allergic Conjunctivitis 74	
Conjunctivitis Associated With	Vernal Conjunctivitis 75
Hay Fever 74	Phlyctenular Conjunctivitis 75
Chemical Conjunctivitis 76	
Metabolic Conjunctivitis 77	
Fungal Conjunctivitis 78	
Conjunctivitis Due to Animal Parasites 79	
Nematodes 79	Cestodes 80
Trematodes 80	Arthropods 80
Conjunctivitis of Unknown Etiology 80	
Chronic Follicular Conjunctivitis 80	Dermatitis Herpetiformis and
Conjunctival Folliculosis 81	Epidermolysis Bullosa 82
Ocular Rosacea 81	Erythema Nodosum 82
Ocular Pemphigus 81	Psoriasis 82
Erythema Multiforme Bullosum 82	Reiter's Disease 83
Degenerative Diseases of the Conjunctiva 83	Lymphangiectasis 83
Pinguecula 83	Lithiasis 84
Pterygium 83	
Conjunctival Argyrosis 84	
Ophthalmia Neonatorum 84	
Chapter 7 Cornea and Sclera	86
Cornea 86	
Corneal Ulcers 87	
Bacterial Corneal Ulcers 88	Corneal Ulcers Due to Vitamin A
Viral Corneal Ulcers 90	Deficiency 96
Fungal Corneal Ulcers 94	Neurotrophic Corneal Ulcers 96
Corneal Ulcers Due to	Corneal Ulcers Due to Exposure 96
Hypersensitivity Reactions 94	Mooren's Ulcer 97
Degenerative Corneal Conditions 97	
Keratoconus 97	Arcus Senilis 99
Corneal Dystrophy of Degeneration 98	
Miscellaneous Corneal Disorders 100	Interstitial Keratitis Due to
Sclerokeratitis 100	Congenital Syphilis 101
Superficial Punctate Keratitis 101	Corneal Pigmentation 102
Recurrent Corneal Erosion 101	
Sclera 103	
Episcleritis 103	Hyaline Degeneration 105
Staphyloma 105	Scleromalacia Perforans 106
Scleritis 105	
Chapter 8 Uveal Tract	107
Uveitis 109	
Uveitis Associated With	Sympathetic Ophthalmia 114
Rheumatoid Arthritis 112	Tuberculous Uveitis 115
Heterochromic Uveitis 113	Boeck's Sarcoid 115
Lens-induced Uveitis 113	Toxoplasmic Uveitis 116
Chapter 9 Retina	117
Degenerative Diseases of the Retina 119	
Drusen 119	Circinate Degeneration of the Retina 122
Angioid Streaks 120	Heredodegeneration of the Macula 122
Disciform Degeneration of the	Cystic Degeneration of the Retina 122
Macula 120	Retinitis Pigmentosa 123
Vascular Diseases of the Retina 124	
Retinal Detachment 127	
Miscellaneous Disorders of the Retina 128	

Chapter 10 Lens	131
Cataract 133	
Senile Cataract 134	
Congenital Cataract 135	
Traumatic Cataract 137	
Cataract Secondary to Intraocular Disease 138	
Cataract Surgery 139	
Dislocated Lens 141	
Cataract Associated With Systemic Disease 138	
Toxic Cataract 138	
After-cataract 138	
Chapter 11 Vitreous	143
Vitreous Detachment 143	
Synchysis Scintillans 143	
Asteroid Hyalitis 144	
Vitreous Hemorrhage 144	
Vitreous Abscess 145	
Vitreous Floaters 145	
Chapter 12 Orbit	146
Exophthalmos 149	
Inflammatory Orbital Diseases 150	
Chapter 13 Neuro-ophthalmology	153
Diseases of the Optic Nerve 156	
Diseases of the Optic Chiasm 165	
The Optic Pathway 169	
The Pupillary Pathways 171	
Nystagmus 172	
Extraocular Movements 175	
Central Nervous System Tumors 181	
Vascular Lesions 183	
Trauma 184	
Inflammatory Lesions 186	
Miscellaneous Diseases 187	
Chapter 14 Strabismus	191
Physiology 194	
Examination: Strabismus Evaluation 196	
Classification of Strabismus 202	
Esotropia 202	
Exotropia 206	
Hypertropia 209	
Heterophoria 211	
Ptosis 214	
Chapter 15 Glaucoma	216
Physiology of Glaucoma 217	
Special Diagnostic Technics 219	
Open-angle Glaucoma 220	
Acute Closed-angle Glaucoma 223	
Subacute or Chronic Closed-angle Glaucoma 226	
Infantile Congenital Glaucoma 227	
Juvenile Congenital Glaucoma 228	
Secondary Glaucoma 229	
Surgical Procedures Used in the Treatment of the Glaucomas 232	
Chapter 16 Tumors	238
Lid Tumors 238	
Conjunctival Tumors 242	
Corneal Tumors 245	
Intraocular Tumors 245	
Orbital Tumors 249	
Chapter 17 Trauma	253
Nonpenetrating Injuries of the Eyeball 253	
Penetrating Injuries to the Eye 256	
Injuries to the Lids 258	
Injuries to the Orbit and Its Contents 259	
Chapter 18 Ocular Disorders Associated With Systemic Diseases	260
Vascular Diseases 260	
Metabolic Diseases 266	
Endocrine Diseases 270	
Diseases Due to Dietary Deficiencies 273	
Chronic Granulomatous Infections 275	
Systemic Viral Diseases 279	
Collagen Diseases 281	
The Phakomatoses 283	
Miscellaneous Diseases 284	
Chapter 19 Hereditary Aspects	286
Chapter 20 Optics and Refraction	290
Chapter 21 Preventive Ophthalmology	306
Appendix	310
Commonly Used Eye Medications 310	
Visual Standards 315	
Practical Factors in Illumination 319	
Vocabulary of Terms Relating to the Eye 320	
Index	323