

Contents

1	Perioperative Medicine	<i>N.T. Schwarz</i>	1
Preoperative Phase	1	Postoperative Period	6
Intraoperative Phase	5	Fast-Track Surgery	7
2	Thyroid	<i>B. Thiel</i>	9
Anatomy	9	Diseases of the Thyroid	26
Physiology	12	Euthyroid Goiter	26
General Epidemiology	12	Hyperthyroidism	28
General Diagnostic Approach	12	Graves Disease, Immunogenic Hyperthyroidism	30
General Treatment Approach	17	Thyrotoxic Crisis	33
		Thyroiditis	34
		Thyroid Carcinoma	37
3	Parathyroid	<i>B. Thiel</i>	44
Anatomy	44	Tertiary Hyperparathyroidism	54
Physiology	45	Parathyroid Carcinoma	54
Primary Hyperparathyroidism	45	Hypoparathyroidism	55
Secondary Hyperparathyroidism	51		
4	Thorax (Pleura, Lung)	<i>R.J. Elfeldt</i>	57
Anatomy	57	Fracture of the Sternum	65
Pleural Effusion	57	Lung Contusion	66
Pleural Empyema	61	Chest Trauma: Penetrating Chest Injuries	67
Chest Trauma: Blunt Chest Injuries	62	Traumatic Pneumothorax	67
Chest Contusion	63	Hemothorax	69
Chest Compression	63	Chylothorax	70
Rib Fractures	64	Tracheal and Bronchial Injuries	70
5	Mediastinum	<i>R.J. Elfeldt</i>	72
Anatomy	72	Mediastinal Emphysema	74
Mediastinoscopy	73	Mediastinitis	75
Subcutaneous Emphysema	74		

6	Diaphragm	<i>I.L. Schmalbach</i>	77
<hr/>			
Anatomy	77	Rare Disorders of the Diaphragm	81
Diaphragmatic Hernias	78		
7	Hernias	<i>J.M. Mayer</i>	83
<hr/>			
Inguinal Hernias	85	Umbilical Hernia	103
Femoral Hernias	95	Epigastric Hernia	104
Incisional Hernias	96	Internal Hernias	104
8	Esophagus	<i>M. Voelz</i>	106
<hr/>			
Anatomy	106	Epiphrenic Pulsion Diverticulum	111
Histology	108	Traction Diverticulum	111
Physiology	108	Gastroesophageal Reflux Disease (GERD)	111
Functional Disorders	108	Esophageal Carcinoma	115
Achalasia	108	Injuries of the Esophagus	123
Other Functional Disorders	109	Corrosive Injuries	123
Esophageal Diverticulum	110	Traumatic Perforation of the Esophagus	124
Cervical Pulsion Diverticulum (Zenker Diverticulum)	110	Spontaneous Esophageal Rupture (Boerhaave Syndrome)	124
9	Stomach and Duodenum	<i>N.T. Schwarz</i>	126
<hr/>			
Anatomy	126	Gastric Carcinoma	155
Ulcer	128	MALT Lymphoma	173
Bleeding from the Stomach and Duodenum	150		
10	Small Intestine	<i>I.L. Schmalbach</i>	176
<hr/>			
Anatomy	176	Meckel Diverticulum	184
Crohn Disease	176	Jejunal Diverticulum	184
11	Vermiform Appendix	<i>I.L. Schmalbach</i>	185
<hr/>			
Anatomy	185	Diverticulitis of the Appendix	193
Acute Appendicitis	185	Appendix Carcinoid	193
Rare Diseases of the Appendix	193	Mucinous Cystadenoma / Pseudomyxoma Peritonei	194
Endometriosis of the Appendix	193	Appendix Carcinoma	194
Crohn Disease	193		

12	Colon	<i>J.M. Mayer</i>	196
<hr/>			
Anatomy	196	Ulcerative Colitis	205
Anastomosis Techniques	197	Polyps of the Colon	212
Minimally Invasive Colon Surgery	199	Colon Cancer	214
Diverticulosis and Diverticulitis	200		
13	Rectum	<i>J.M. Mayer</i>	230
<hr/>			
Anatomy	230	Pelvic Floor Insufficiency	240
Rectal Cancer	233		
14	Anus	<i>J.M. Mayer</i>	245
<hr/>			
Anatomy	245	Abscesses and Anal Fistulas	251
Hemorrhoids	245	Fecal Incontinence	255
Perianal Vein Thrombosis	250	Anal Carcinoma	258
Anal Fissure	250		
15	Intestinal Obstruction	<i>H. Brunn</i>	263
<hr/>			
16	Spleen	<i>H. Brunn</i>	277
<hr/>			
Anatomy	277	Hypersplenism Syndrome	277
Physiology	277		
17	Liver	<i>M. Voelz</i>	281
<hr/>			
Anatomy	281	Malignant Liver Tumors	284
Benign Liver Tumors	282	Primary Hepatic Carcinoma	284
Focal Nodular Hyperplasia (FNH)	282	Liver Metastases	286
Hepatocellular Adenoma	283	Hydatid Disease of the Liver (Echinococcosis)	297
Hepatic Hemangioma	283	Portal Hypertension	299
Hepatic Cysts	284	Liver Trauma	302
18	Gallbladder and Biliary Tract	<i>M. Voelz</i>	304
<hr/>			
Anatomy	304	Gallbladder Carcinoma	316
Cholecystolithiasis	306	Extrahepatic Bile Duct Carcinoma	319
Acute Cholecystitis	315		

19	Pancreas	<i>N.T. Schwarz</i>	321
Anatomy	321	Pancreatic Pseudocysts	331
Physiology	323	Carcinoma of the Pancreas	332
Acute Pancreatitis	323	Endocrine Pancreatic Tumors	336
Chronic Pancreatitis	327	Pancreatic Trauma	337
20	Transplantation	<i>N.T. Schwarz</i>	339
21	Peritonitis	<i>B. Thiel</i>	346
22	Neuroendocrine Tumors and Gastrointestinal Stromal Tumors	<i>J.M. Mayer</i>	360
Neuroendocrine Tumors	360	Vermiform Appendix	370
Stomach	364	Colon	371
Duodenum and Pancreas—Insulinoma	364	Rectum	372
Duodenum and Pancreas—Gastrinoma	366	Gastrointestinal Stromal Tumors	372
Ileum	369		
23	Soft-Tissue Tumors	<i>H. Brunn</i>	377
24	Vascular Surgery	<i>A. Selch</i>	381
Arteries	381	Subclavian Steal Syndrome	390
Vascular Injuries	382	Veins	391
Aneurysms	383	Varicose Veins	391
Acute Limb Artery Occlusion	385	Phlebothrombosis	392
Acute Mesenteric Artery Occlusion	387		
Chronic Arterial Disease of the Limbs	388		
25	Emergency and Trauma Surgery	<i>M. Fuchs</i>	395
Polytrauma	395	Soft-Tissue Injuries	405
Head Injury	397	Bone Infection	407
Fractures	399	Nerve Injury	409
Dislocations	403	Tendon Rupture	410
Illustration Credits			413
Index			415