

Contents

Chapter 1 Cell Biology, Embryology and the Placenta	1
The Cell	1
The Genetic Code	4
Chromosome Abnormalities	8
Genetics — Single and Multiple Gene Defects	11
Fertilisation	13
Cleavage of the Embryo: the Morula and the Blastocyst	15
Implantation of the Blastocyst and Early Development of the Placenta and Embryo	16
Multiple Pregnancy	19
Development of the Placenta	19
Further Development of the Embryo	22
The Placenta	24
Placental Synthesis	26
Placental Transfer	28
The Membranes and Amniotic Fluid	32
Further Reading	34
 Chapter 2 Anatomy	 35
The Vulva	35
The Vagina	37
The Uterus	39
The Fallopian Tubes	41
The Ovaries	41
The Female Urological System	42
The Levator Ani Muscles (Pelvic Diaphragm)	44
The Perineum	45
Peritoneum and Ligaments of the Pelvis	46
Blood Supply to the Female Pelvis	48
Lymphatic Drainage of the Female Pelvis	49
Nerve Supply to the Female Pelvis	49
The Pelvic Skeleton	51
The Fetal Skull	55

Microstructure and Function of the Non-pregnant	
Reproductive Tract	56
Embryology of the Genital System	58
The Anterior Abdominal Wall	60
Further Reading	62
 Chapter 3 General Physiology and Biochemistry	63
The Cardiovascular System	63
The Lung	69
The Kidney	73
The Nervous System	74
The Gut and Nutrition	74
Metabolism	77
Immunology	83
Further Reading	89
 Chapter 4 Endocrinology	91
Some Basic Concepts in Endocrinology	91
The Hypothalamus	92
The Anterior Pituitary	96
The Posterior Pituitary	101
The Breast and Lactation	102
Sex Steroids	104
The Ovary	110
The Testis	115
Thyroid Gland	118
The Adrenal Cortex	121
The Adrenal Medulla	124
Hormones Involved in Calcium Homeostasis	125
Puberty and Menopause	126
Initiation of Labour	128
The Pineal Gland	128
Further Reading	129
 Chapter 5 Pathology	131
Inflammation	131
Wound Healing	134
The Metabolic Response to Injury	136
Shock	137
Tumours	138
Thrombosis and Embolism	147
Deposition of Salts and Pigments	149
Effects of Radiation	149
Further Reading	150

Chapter 6 Microbiology	151
Bacteria	151
Viruses	155
Rickettsial Organisms	159
Mycoplasmas (Pleuropneumonia-like Organisms)	160
Fungal Infections	160
Protozoal Infections	160
Some Characteristics of Infections at Special Sites	161
Further Reading	161
 Chapter 7 Pharmacology	 163
Introduction	163
Sedative, Hypnotic and Anxiolytic Agents	163
Antipsychotic Agents	164
Antidepressive Agents	165
Analgesic Agents	165
Antacid Agents	166
Laxative Agents	166
Anti-emetic Agents	167
Antihistamines	167
Diuretic Agents	167
Antihypertensive Agents	168
Drugs Affecting Blood Coagulation	168
Chemotherapy of Infection	171
Pharmacology of Sex Steroids	174
Drugs Affecting Contraction of the Uterus	178
Anticancer Drugs (Cytotoxic Agents)	181
General Anaesthetic Agents	183
Local Anaesthetic Agents	183
Some General Aspects of Pharmacology in Pregnancy	185
Some General Aspects of Pharmacology During Breast Feeding	186
 Appendix A Statistics	 187
 Appendix B Ultrasound	 189
 Subject Index	 191