

The Essentials of Respiratory Therapy

Second Edition

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Preface to the First Edition

Over the years the field of respiratory therapy has expanded significantly and become increasingly complex. Along with this maturing of the profession has come an increase in the level and diversity of knowledge required of the respiratory care practitioner. In order to keep abreast of the educational needs of the field, many texts have been developed by a myriad of authors, each highlighting various aspects of the field.

The purpose of this text, *The Essentials of Respiratory Therapy*, is to unite in a simple and logical presentation areas in which the respiratory care practitioner must develop expertise. In format the text is an extensive presentation of the essential aspects of respiratory therapy; the basic sciences, anatomy and physiology, and the therapeutic aspects of the field are organized in an easily followed outline. As this format indicates, the text is intended as a secondary rather than a primary text; that is, a certain level of overall understanding of respiratory therapy is assumed. The individual requiring in-depth, detailed discussion on a topic should refer to texts of a primary nature.

The text begins with a presentation of the chemistry and gas physics related to respiratory therapy, followed by an extensive, detailed outline of the anatomy and physiology of the respiratory, cardiovascular and nervous systems. Pharmacology, pulmonary functions, neonatal comparative anatomy and obstructive and restrictive pulmonary diseases are then presented. A description of specific therapeutic methods, ventilators, analyzers, microbiology and sterilization techniques completes the text.

At the end of each chapter, references are provided for those interested in pursuing the topic in greater detail.

The general organization of the text makes it an excellent tool for the individual preparing for the registry or certification examinations.

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Preface to the Second Edition

THE PROFESSION OF RESPIRATORY CARE is presently undergoing significant changes. The responsibilities of respiratory care practitioners seem to differ from institution to institution. In spite of these variations and alterations in focus, there is still a basic body of knowledge essential to the practice of respiratory care.

The purpose of this text, *The Essentials of Respiratory Therapy*, is to present this required common knowledge base in a logical, well organized manner for quick reference and review. This text is presented as an outline, highlighting all essential aspects of a topic and detailing those more difficult areas. In addition, each chapter is followed by an extensive bibliography including primary texts for additional explanation and periodical literature identifying original research in given areas.

The text begins with chapters on gas physics and chemistry. Following these are a number of chapters detailing pulmonary anatomy and physiology, as well as cardiovascular, neurological, and renal anatomy and physiology. Shunting and deadspace, blood gas interpretation, and fluid and electrolytes are addressed in independent chapters. Chapters addressing all therapeutic aspects of respiratory therapy follow with extensive chapters on mechanical ventilation and PEEP. The text ends with chapters addressing pharmacology, microbiology, sterilization and cleaning.

Those using this text to prepare for both registry and certification examinations will find the book a necessary aid in organizing their study plans and identifying topics requiring additional emphasis.

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Contents

Preface to the First Edition	ix
Preface to the Second Edition	xi
1 / Basic Chemistry	1
I. Atomic Structure	1
II. Molecular Structure	1
III. Valance	3
IV. Chemical Compounds	3
V. Volume Percent and Gram Percent	4
VI. Chemical Solutions	4
VII. Solution Concentrations	4
VIII. Dilution Calculations	6
IX. Gram Equivalent Weights	7
X. Temperature Scales	9
XI. Osmosis	10
XII. Hydrostatic Pressure	10
XIII. Expression of H^+ Ion Concentration	10
XIV. Acids and Bases	11
XV. Oxidation and Reduction	11
XVI. The Metric System	11
2 / General Principles of Gas Physics	14
I. Basic Units and Relationships	14
II. States of Matter	15
III. Kinetic Theory of Gases	18
IV. Avogadro's Law	18
V. Density	18
VI. Gas Pressure	20
VII. Humidity	21
VIII. Dalton's Law of Partial Pressure	22
IX. Effect of Humidity on Dalton's Law	22
X. Ideal Gas Laws	23
XI. Diffusion	25
XII. Elastance and Compliance	27
XIII. Surface Tension	28
XIV. Fluid Dynamics	29

3 / Anatomy of the Respiratory System	38
I. Boundaries and Functions of the Upper Airway	38
II. Boundaries and Functions of the Lower Airway	47
III. The Lung	61
IV. Bony Thorax	66
V. Muscles of Inspiration	68
VI. Accessory Muscles of Expiration	70
4 / Mechanics of Ventilation	72
I. The Lung-Thorax System	72
II. Inspiration	72
III. Exhalation	75
IV. Resistance to Ventilation	76
V. Surface Tension	76
VI. Compliance	77
VII. Airway Resistance	80
VIII. Tissue Viscous Resistance	82
IX. Functional Residual Capacity	82
X. Ventilation/Perfusion Relationships	82
XI. Ideal Alveolar Gas Equation	84
5 / Neurologic Control of Ventilation	87
I. Areas Affecting Neurologic Control of Ventilation	87
II. Medulla Oblongata	87
III. Cerebral Cortex	88
IV. Pons	88
V. Upper Airway Reflexes	89
VI. Vagus Nerve	89
VII. Glossopharyngeal Nerve	90
VIII. Peripheral Chemoreceptors	91
IX. Central Chemoreceptors	92
X. Efferent Impulses From the Medulla Oblongata	93
XI. Medullary Adjustments in Compensated Respiratory Acidosis	93
XII. Medullary Adjustments in Compensated Respiratory Alkalosis	93
XIII. Medullary Adjustments in Compensated Metabolic Acidosis	94
XIV. Medullary Adjustments in Compensated Metabolic Alkalosis	94
6 / Anatomy of the Cardiovascular System	96
I. Blood	96
II. The Blood Vessels	99
III. The Lymphatic Vessels	102
IV. The Heart	103
7 / Physiology of the Cardiovascular System	116
I. Functions of the Blood	116
II. Anatomical Classification of the Vascular Bed	116

III.	Functional Divisions of the Vascular Bed	116
IV.	Vascular System: Systemic and Pulmonary Circulations	118
V.	Basic Functions of the Heart	122
VI.	Mechanical Events of the Cardiac Cycle	123
VII.	Cardiac Output	127
VIII.	Control of Arterial Blood Pressure	137
8 /	Anatomy and Physiology of the Nervous System	142
I.	Structure of the Nerve Fiber	142
II.	Classification of Neurons	142
III.	Nerve Cell Membrane Potential	142
IV.	Action Potential	143
V.	Nerve Impulse Propagation	143
VI.	Nerve Synapse	143
VII.	Alteration of Nerve Impulse Transmission	145
VIII.	Neuromuscular Junction	145
IX.	Reflex Arc or Reflex Action	146
X.	Organization of the Nervous System	147
9 /	Renal Anatomy and Physiology	154
I.	Gross Anatomy	154
II.	The Nephron	154
III.	Major Functions of the Kidney	156
IV.	Glomerular Filtration	157
V.	Tubular Reabsorption	158
VI.	Tubular Secretion	158
VII.	Renal Clearance	158
VIII.	Counter Current Multiplier	159
IX.	Antidiuretic Hormone (ADH)	160
X.	Aldosterone	160
XI.	Renin-Angiotensin	161
XII.	Secretion of H^+ and Reabsorption of HCO_3^-	161
10 /	Neonatal and Pediatric Anatomy and Physiology	166
I.	Embryologic Development of the Lung	166
II.	Fetal Circulation	167
III.	Circulatory Changes at Normal Birth	169
IV.	Pulmonary Changes at Birth	170
V.	Clinical Evaluation of the Neonate	171
VI.	Prenatal Conditions That Increase Mortality and Morbidity	172
VII.	Blood Gases of the Neonate	173
VIII.	Respiratory Patterns of the Neonate	173
IX.	Hemodynamic Values	174
X.	Fetal Monitoring	174
XI.	Transcutaneous PO_2 and PCO_2 Monitoring	177
XII.	Transillumination	177

XIII.	Comparative Neonatal Respiratory Anatomy	177
XIV.	Body Surface Area	180
11 / Oxygen and Carbon Dioxide Transport		182
I.	Oxygen Cascade	182
II.	Role of Oxygen in the Cell	182
III.	Carriage of Oxygen in the Blood	182
IV.	O ₂ Availability	188
V.	Oxygen Consumption	188
VI.	Production of Carbon Dioxide	189
VII.	Carriage of Carbon Dioxide in the Blood	189
VIII.	The Haldane Effect	191
IX.	Quantitative Distribution of Carbon Dioxide	191
X.	Total CO ₂	191
XI.	Respiratory Quotient, Respiratory Exchange Ratio, and Ventilation/Perfusion Ratio	192
12 / Acid-Base Balance and Blood Gas Interpretation.		194
I.	Electrolytes	194
II.	Law of Mass Action	194
III.	Henderson-Hasselbalch Equation (Standard Buffer Equation)	196
IV.	pK (–Log of the Dissociation Constant)	198
V.	Buffers	198
VI.	The HCO ₃ [–] /H ₂ CO ₃ Buffer System	200
VII.	Actual versus Standard HCO ₃ [–]	201
VIII.	Base Excess/Base Deficit	201
IX.	Normal Ranges for Blood Gases	202
X.	Mathematical Interrelationships Between pH, PCO ₂ and HCO ₃ [–]	203
XI.	Compensation for Primary Acid-Base Abnormalities	204
XII.	Estimation of pH Changes Based Purely on PCO ₂ Changes	204
XIII.	Interpretation of Arterial Blood Gases	205
XIV.	Interpretation of Acid-Base Status	205
XV.	Assessment of Level of Hypoxemia	208
XVI.	Assessment of Tissue Hypoxia	208
XVII.	Clinical Causes of Acid-Base Abnormalities	208
XVIII.	Estimation of Base Excess/Base Deficit	210
XIX.	Calculation of Bicarbonate Administration	211
XX.	Calculation of Ammonium Chloride (NH ₃ Cl) or Dilute Hydrochloric Acid (HCl) Administration	211
XXI.	Typical Blood Gas Contaminants	211
13 / Intrapulmonary Shunting and Dead Space		214
I.	Spectrum of Ventilation/Perfusion (V/Q) Abnormalities	214
II.	Intrapulmonary Shunting	214

III.	Derivation of Classic Shunt Equation	217
IV.	Calculating the Total Physiologic Shunt	218
V.	Estimated Intrapulmonary Shunt Calculation	219
VI.	Alveolar-Arterial PO_2 Difference ($A - aDO_2$)	220
VII.	FIO_2 Used to Calculate Percent Intrapulmonary Shunt	220
VIII.	Clinical Use of the Shunt Calculation	222
IX.	Pulmonary Deadspace	224
X.	Derivation of the Deadspace Equation	225
XI.	Calculating the Deadspace to Tidal Volume Ratio	226
XII.	Minute Volume— $Paco_2$ Relationship	226
XIII.	Clinical Use of the Deadspace to Tidal Volume Ratios	227
XIV.	Guidelines for Differentiating Shunt-Producing from Deadspace-Producing Disease	227
14 / Hemodynamic Monitoring		229
I.	Systemic Arterial Blood Pressure	229
II.	Central Venous Pressure (CVP)	231
III.	Pulmonary Artery Pressure	232
IV.	Pulmonary Wedge Pressure	234
V.	Calculating and Comparing Systemic and Pulmonary Vascular Resistance	235
VI.	Techniques of Measuring Cardiac Output	236
15 / Fluid and Electrolyte Balance		241
I.	Distribution of Body Fluids	241
II.	Normal Intake and Output of Fluids	241
III.	Composition of the Intravascular Space	241
IV.	Composition of the Extravascular (Interstitial) Fluid	242
V.	Composition of the Intracellular Compartment	243
VI.	Movement Across Membranes	243
VII.	Starling Law of Fluid Exchange	244
VIII.	Sodium	248
IX.	Chloride	248
X.	Potassium	249
XI.	Calcium	250
XII.	Magnesium	251
XIII.	Phosphate	252
XIV.	Fluid Balance	252
16 / Cardiac Electrophysiology and ECG Interpretation		256
I.	Functions of the Electric Conduction System of the Heart	256
II.	Electroconduction System of the Heart	256
III.	Electrocardiogram (ECG)	259
IV.	ECG Interpretation	262

17 / Pulmonary Function Studies.	272
I. Lung Volume and Capacities	272
II. Flow Rate Studies	281
III. Normal Values.	284
IV. Flow-Volume Loops	284
V. Diffusion Studies.	284
VI. Bronchial Provocation Tests	285
18 / Clinical Assessment of the Cardiopulmonary System	290
I. Physical Assessment of the Chest	290
II. Work of Breathing	293
III. Ventilatory Reserve.	294
IV. Vital Capacity/Negative Inspiratory Force	297
V. Assessment of Peripheral Perfusion.	298
19 / Obstructive Pulmonary Diseases	300
I. General Comments	300
II. Management of COPD	304
III. Emphysema.	305
IV. Bronchitis	306
V. Bronchiectasis	308
VI. Asthma	310
20 / Restrictive Lung Diseases.	314
I. General Comments	314
II. Pulmonary Restrictive Lung Diseases	315
III. Thoracoskeletal Restrictive Lung Diseases	327
IV. Neurologic-Neuromuscular Restrictive Lung Diseases	328
V. Abdominal Restrictive Lung Diseases	330
VI. Smoke Inhalation and Carbon Monoxide Poisoning	331
21 / Neonatal Anomalies and Diseases	335
I. Infant Respiratory Distress Syndrome (IRDS); (Idiopathic Respiratory Distress Syndrome or Hyaline Membrane Disease).	335
II. Bronchopulmonary Dysplasia (BPD)	336
III. Meconium Aspiration	337
IV. Persistent Fetal Circulation.	337
V. Transient Tachypnea of the Newborn (TTN)	338
VI. Pulmonary Dysmaturity (Mikity-Wilson Syndrome)	338
VII. Rh Incompatibilities	339
VIII. Neonatal Pneumonia	339
IX. Cardiac Anomalies	339
X. Pulmonary Anomalies	348

22 / Pediatric Pulmonary Diseases	352
I. Cystic Fibrosis (Mucoviscidosis)	352
II. Bronchiolitis	353
III. Croup	354
IV. Epiglottitis	354
V. Sudden Infant Death Syndrome (SIDS)	355
23 / Gas Therapy	358
I. Medical, Laboratory, and Therapeutic Gases and Mixtures	358
II. Flammable Gases	358
III. Nonflammable Gases	358
IV. Gases That Support Combustion	358
V. Gas Cylinders	358
VI. Regulation of Gas Flow	361
VII. Safety Systems Incorporated in Gas Flow Systems and Cylinders	366
VIII. Agencies Regulating Medical Gases	368
IX. Fractional Distillation of Air	368
24 / Oxygen Therapy	370
I. General Characteristics of Oxygen	370
II. Hypoxia: Inadequate Quantities of Oxygen at the Tissue Level	370
III. Hypoxemia: Inadequate Quantities of Oxygen in the Blood	371
IV. Indications for Oxygen Therapy	372
V. Hazards of Oxygen Therapy	372
VI. Oxygen Delivery Systems	375
25 / Airway Care	381
I. General Indications for Use of Artificial Airways	381
II. General Classification of Artificial Airways	381
III. Laryngotracheal Complications of Endotracheal Intubation	386
IV. Postextubation Therapy	386
V. Airway Cuffs	386
VI. Cuff Deflation Technique	388
VII. Artificial Airway Emergencies	388
VIII. Management of Acute Obstruction of Artificial Airway	388
IX. Airway Suctioning	388
26 / Aerosol Therapy	391
I. Stability	391
II. Penetration and Deposition of an Aerosol in the Respiratory Tract	391
III. Ventilatory Pattern for Optimal Penetration and Deposition	391
IV. Clearance of Aerosols	392
V. Indications for Aerosol Therapy	392

VI.	General Goals of Aerosol Therapy	393
VII.	Hazards of Aerosol Therapy	393
VIII.	Mechanical Aerosol Generators	393
IX.	Ultrasonic Aerosol Generators.	394
X.	Babington (Hydrosphere) Nebulizer	394
XI.	Comparison of Nebulizer Output	394
XII.	Comparison of Nebulizer Particle Size	395
27 / Chest Physiotherapy		397
I.	Definition	397
II.	Postural Drainage	397
III.	Percussion	400
IV.	Vibrations	401
V.	General Hazards and Complications of Postural Drainage, Percussion, and Vibration	401
VI.	Cough Assistance.	402
VII.	Breathing Instruction and Retraining	403
28 / Mechanical Aids to Intermittent Lung Expansion		406
I.	Physiologic Basis of Mechanical Aids for Intermittent Lung Inflation in the Treatment or Prevention of Atelectasis	406
II.	Intermittent Positive Pressure Breathing (IPPB).	406
III.	Incentive Spirometry	411
IV.	Rebreathing Devices	412
V.	Blow Bottles	412
29 / Analyzers		414
I.	Oxygen Analyzers	414
II.	pH (Sanz) Electrode	418
III.	PCO ₂ (Severinghaus) Electrode	420
IV.	Transcutaneous Monitoring.	420
V.	Spectrophotometric Analyzers.	420
30 / Fluidics		423
I.	General Characteristics of Fluidic Gas Flow Systems	423
II.	Asymmetric Fluidic Logic	424
III.	Symmetric Bistable Fluidic Logic	425
IV.	Asymmetric Bistable Fluidic Logic	426
V.	Monostable Fluidic Logic	427
VI.	AND/NAND Fluidic Logic	428
VII.	OR/NOR Fluidic Logic	429
VIII.	Proportional Amplifier.	430
IX.	Back Pressure Switch	431
X.	Ventilators Incorporating Fluidic Logics	432

31 / Technical Aspects of Mechanical Ventilators	433
I. Classification of Mechanical Ventilators	433
II. Specific Mechanical Ventilators	440
32 / Continuous Mechanical Ventilation	462
I. Physiologic Effects of Positive Pressure in Relation to Continuous Mechanical Ventilation.	462
II. Indications for Mechanical Ventilation	465
III. Ventilator Commitment	467
IV. Determination of Settings on the Mechanical Ventilator.	468
V. Monitoring the Patient/Ventilator System	480
VI. Ventilator Alarm Systems	484
VII. Ventilator Maintenance	484
VIII. Ventilator Discontinuance	490
33 / Positive End Expiratory Pressure.	498
I. Definition of Terms.	498
II. Physiologic Effects of PEEP	498
III. Indications for PEEP Therapy.	511
IV. Physiologic PEEP	512
V. Prophylactic PEEP	513
VI. Clinical Goals of PEEP Therapy.	513
VII. Monitoring PEEP Therapy	514
VIII. Periodic Discontinuation of PEEP	515
IX. Clinical Application of PEEP	515
X. Technical Application of PEEP	516
34 / Pharmacology	527
I. General Information	527
II. Wetting Agents/Diluents.	530
III. Mucolytics	531
IV. Prophylactic Antiasthmatics.	531
V. Detergent	532
VI. Surface-Active Agents	533
VII. Sympathomimetics: General Considerations	533
VIII. Specific Sympathomimetics.	535
IX. Sympathomimetics Utilized for Their Effects on the Cardiovascular System.	538
X. Noncatecholamines Affecting the Sympathetic Nervous System	539
XI. Parasympathomimetics	540
XII. Parasympatholytics	542
XIII. Sympatholytics	542
XIV. Neuromuscular Blocking Agents	543
XV. Steroids	544
XVI. Diuretics	547