



# CONTENTS

## UNIT ONE Basic Concepts

CHAPTER 1	Fundamental Concepts and Definitions . . . . .	3
CHAPTER 2	Nursing Assessment . . . . .	14

## UNIT TWO Overview of Fluid and Electrolyte Problems: Nursing Considerations

CHAPTER 3	Fluid Volume Imbalances . . . . .	45
CHAPTER 4	Sodium Imbalances . . . . .	64
CHAPTER 5	Potassium Imbalances . . . . .	94
CHAPTER 6	Calcium Imbalances . . . . .	114
CHAPTER 7	Magnesium Imbalances . . . . .	132
CHAPTER 8	Phosphorus Imbalances . . . . .	147
CHAPTER 9	Acid-Base Imbalances . . . . .	158

## UNIT THREE Parenteral and Enteral Nutrition

CHAPTER 10	Parenteral Fluids . . . . .	179
CHAPTER 11	Parenteral Nutrition . . . . .	193
CHAPTER 12	Tube Feedings . . . . .	206

## UNIT FOUR Clinical Situations Associated with Fluid and Electrolyte Problems

CHAPTER 13	Gastrointestinal Problems . . . . .	225
CHAPTER 14	Fluid Balance in the Surgical Patient . . . . .	242
CHAPTER 15	Hypovolemic Shock in Trauma and Postoperative Patients . . . . .	256
CHAPTER 16	Heart Failure . . . . .	272
CHAPTER 17	Renal Failure . . . . .	293
CHAPTER 18	Diabetic Ketoacidosis and Hyperosmolar Syndrome . . . . .	317
CHAPTER 19	Fluid Balance in the Brain-Injured Patient . . . . .	337
CHAPTER 20	Acute Pancreatitis . . . . .	352
CHAPTER 21	Cirrhosis with Ascites. . . . .	364
CHAPTER 22	Oncologic Conditions. . . . .	378
CHAPTER 23	Pregnancy . . . . .	395

UNIT FIVE

Special Considerations in Children and the Elderly

CHAPTER 24 Fluid Balance in Infants and Children. . . . . 409

CHAPTER 25 Fluid Balance in the Elderly Patient. . . . . 425

INDEX . . . . . 441

UNIT ONE  
Basic Concepts

CHAPTER 1 Fundamental Concepts and Definitions . . . . . 3

CHAPTER 2 Nursing Assessment . . . . . 14

UNIT TWO  
Overview of fluid and electrolyte problems: Nursing Considerations

CHAPTER 3 Fluid Volume Imbalances . . . . . 42

CHAPTER 4 Sodium Imbalances . . . . . 64

CHAPTER 5 Potassium Imbalances . . . . . 94

CHAPTER 6 Calcium Imbalances . . . . . 114

CHAPTER 7 Magnesium Imbalances . . . . . 132

CHAPTER 8 Phosphorus Imbalances . . . . . 147

CHAPTER 9 Acid-Base Imbalances . . . . . 158

UNIT THREE  
Parenteral and Enteral Nutrition

CHAPTER 10 Parenteral Fluids . . . . . 179

CHAPTER 11 Parenteral Nutrition . . . . . 193

CHAPTER 12 Tube Feeding . . . . . 204

UNIT FOUR  
Critical Situations Associated with fluid and electrolyte problems

CHAPTER 13 Gastrointestinal Problems . . . . . 217

CHAPTER 14 Fluid Balance in the Surgical Patient . . . . . 241

CHAPTER 15 Hypovolemic Shock in Trauma and Postoperative Patients . . . . . 250

CHAPTER 16 Heart Failure . . . . . 272

CHAPTER 17 Renal Failure . . . . . 281

CHAPTER 18 Diabetic Ketoacidosis and Hypoglycemic Episodes . . . . . 317

CHAPTER 19 Fluid Balance in the Brain-Injured Patient . . . . . 319

CHAPTER 20 Acute Pancreatitis . . . . . 323

CHAPTER 21 Cirrhosis with Ascites . . . . . 344

CHAPTER 22 Oncologic Conditions . . . . . 378

CHAPTER 23 Pregnancy . . . . . 393