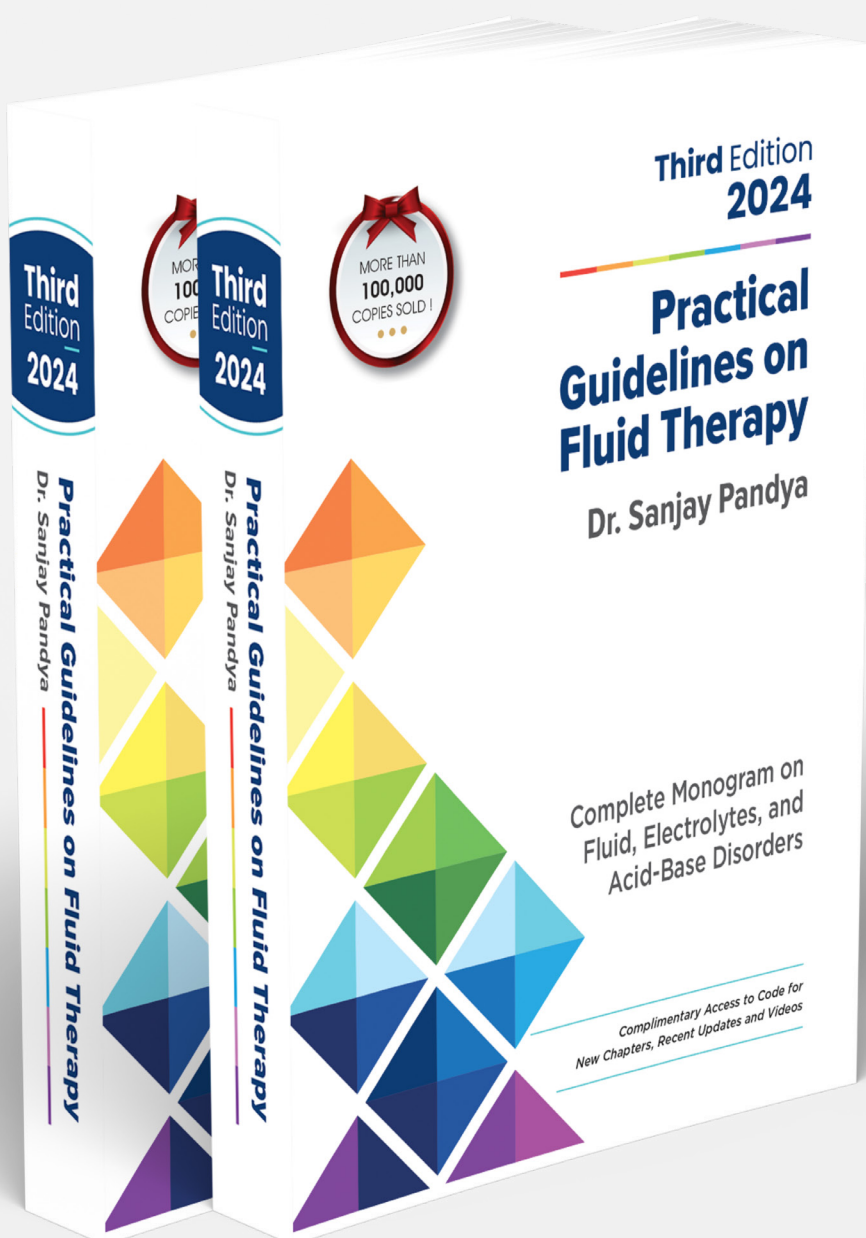


## Chapter 10:

# Calcium Gluconate, Calcium Chloride, and Hypertonic Dextrose Solutions



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# Table of Contents

## **Part 1 Physiology**

Overview of total body fluid distribution, water balance, and electrolyte compartments.

**Chapter 1**

## **Part 2 Basics of Intravenous Fluids and Solutions**

Introduction to crystalloids and colloids, their composition, clinical use, precautions, and contraindications.

**Chapter 2-5**

## **Part 3 Fluid Replacement Strategies**

Principles of fluid therapy, including maintenance, resuscitation, and special considerations for the elderly.

**Chapter 6-9**

## **Part 4 Parenteral Additives**

Composition, clinical applications, and precautions for various parenteral additives.

**Chapter 10-14**

## **Part 5 Hemodynamic Monitoring**

Principles and techniques for assessing fluid status and cardiac output, using basic and advanced methods.

**Chapter 15-19**

## **Part 6 Electrolyte Disorders**

Causes, presentation, diagnosis, and management of various electrolyte imbalances.

**Chapter 20-29**

## **Part 7 Acid-Base Disorders**

Concepts, interpretation, and management of metabolic and respiratory acid-base disorders.

**Chapter 30-33**

## **Part 8 Fluid Therapy in Medical Disorders**

Guidelines for fluid management in conditions like GI diseases, liver disorders, respiratory issues, and diabetic emergencies.

**Chapter 34-41**

## **Part 9 Fluid Therapy in Surgical Disorders**

Fluid management before, during, and after surgery, including TURP syndrome and burns.

**Chapter 42-47**

## **Part 10 Fluid Therapy in Pediatrics**

Special considerations for fluid management in children and neonates, including resuscitation, maintenance, and oral rehydration.

**Chapter 48-50**

## **Part 11 Fluid Therapy in Obstetrics**

Fluid management strategies for pregnancy, cesarean delivery, preeclampsia, and labor-related hyponatremia.

**Chapter 51-54**

## **Part 12 Parenteral Nutrition**

Principles, indications, and administration of parenteral nutrition, with disease-specific guidelines and complication management.

**Chapter 55-57**

# 10

## Calcium Gluconate, Calcium Chloride, and Hypertonic Dextrose Solutions

<b>CALCIUM GLUCONATE AND CALCIUM CHLORIDE .....</b>	<b>116</b>
<b>Composition.....</b>	<b>116</b>
<b>Pharmacological basis.....</b>	<b>116</b>
<b>Indications.....</b>	<b>116</b>
Hyperkalemia .....	116
Hypocalcemia.....	117
Severe hypermagnesemia .....	117
Calcium-channel blocker overdose.....	118
$\beta$ -blocker overdose.....	118
Prevent citrate toxicity .....	118

Hydrofluoric acid burns.....	119
Cardiac resuscitation .....	119
<b>Contraindications and precautions..</b>	<b>119</b>

<b>HYPERTONIC DEXTROSE SOLUTIONS .....</b>	<b>120</b>
<b>Composition.....</b>	<b>120</b>
<b>Pharmacological basis.....</b>	<b>120</b>
<b>Indications.....</b>	<b>120</b>
<b>Contraindications .....</b>	<b>120</b>
<b>Adverse effects and cautions.....</b>	<b>120</b>

Commonly used special solutions are calcium chloride, calcium gluconate, dextrose 25% and 50%, hypertonic

saline, magnesium sulfate, potassium chloride, potassium phosphate, and sodium bicarbonate (Table 10.1).

**Table 10.1 Composition of commonly used special solutions**

Injection	Content in mEq/ml	Volume of amp (mL)	Content in mEq/amp	gm/10 ml amp
Calcium gluconate 10%	$\text{Ca}^{2+} = 0.45$	10	$\text{Ca}^{2+} = 4.5/10 \text{ ml}$	1.0
Calcium chloride 10%	$\text{Ca}^{2+} = 1.36$	10	$\text{Ca}^{2+} = 13.6/10 \text{ ml}$	1.0
Hypertonic (3%) saline	$\text{Na}^+ = 0.5$	100	$\text{Na}^+ = 51/100 \text{ ml}$	3.0
Magnesium sulfate 50%	$\text{Mg}^{2+} = 4$	2.0	$\text{Mg}^{2+} = 8/2 \text{ ml}$	1.0
Potassium chloride 15%	$\text{K}^+ = 2.0$	10	$\text{K}^+ = 20/10 \text{ ml}$	1.5
Potassium phosphates	$\text{K}^+ = 4.4$ $\text{PH}_4 = 3.0$	15	$\text{K}^+ = 66/15 \text{ ml}$ $\text{PH}_4 = 45/15 \text{ ml}$	-
7.5% $\text{NaHCO}_3$	$\text{HCO}_3 = 0.9$	10	$\text{HCO}_3 = 9/10 \text{ ml}$	0.75
8.4% $\text{NaHCO}_3$	$\text{HCO}_3 = 1.0$	20	$\text{HCO}_3 = 10/10 \text{ ml}$	0.84
$\text{HCO}_3^-$ : Bicarbonate; $\text{Ca}^{2+}$ : Calcium; $\text{Mg}^{2+}$ : Magnesium; $\text{PH}_4$ : Phosphate; $\text{K}^+$ : Potassium; $\text{Na}^+$ : Sodium; $\text{NaHCO}_3$ : Sodium bicarbonate				

### INJECTION CALCIUM GLUCONATE AND CALCIUM CHLORIDE

Inj. calcium gluconate and calcium chlo-

ride are two different salt forms commonly used in various emergency conditions.

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