

# Contents

Preface	vii
List of abbreviations	viii
1 Requesting laboratory tests and interpreting the results	1
2 Water and sodium	6
3 The kidneys	36
4 Acid–base disturbances	59
5 Potassium	83
6 Calcium, phosphate and magnesium	95
7 The hypothalamus and pituitary gland	116
8 The adrenal cortex	129
9 The reproductive system	146
10 Pregnancy and infertility	157
11 Thyroid function	164
12 Carbohydrate metabolism	176
13 Plasma lipids and lipoproteins	200
14 Nutrition	216
15 Vitamins, trace elements and metals	224
16 The gastrointestinal tract	235
17 Liver disorders and gallstones	252
18 Plasma enzymes in diagnosis (clinical enzymology)	270
19 Proteins in plasma and urine	282
20 Purine and urate metabolism	303
21 Disorders of haem metabolism: iron and the porphyrias	310
22 Cardiovascular disease	325

23	Cerebrospinal, pleural and ascitic fluids	332
24	Metabolic effects of tumours	338
25	Therapeutic drug monitoring and poisoning	347
26	Clinical biochemistry at the extremes of age	358
27	Inborn errors of metabolism	371
28	Genetics and deoxyribonucleic acid-based technology in clinical biochemistry	384
29	Patient sample collection and use of the laboratory	391
30	Point-of-care testing	397
	Appendix 1: Units in clinical chemistry	401
	Index	403

**COMPANION WEBSITE**

This book has a companion website available at:

[www.hodderplus.com/clinicalbiochemistry](http://www.hodderplus.com/clinicalbiochemistry)

The website contains downloadable images from the book as well as self assessment questions.

To access these resources please register on the website using the following access details:

Serial number: 145jw76mc8fw

Once you have registered you will not need the serial number but can log in using the username and password that you will create during your registration.

For more information on this book visit the Taylor & Francis Web site at <http://www.taylorandfrancis.com>

For more information on this book visit the CRC Press Web site at <http://www.crcpress.com>

A catalogue record for this book is available from the British Library

A catalogue record for this book is available from the Library of Congress

Copyright © 2012 Taylor & Francis Group, LLC

Printed in the United Kingdom by Phoenix Press, Exeter, Devon