

**TEXT-BOOK OF
ANATOMY
AND PHYSIOLOGY FOR
NURSES**

Published @ 2017 Trieste Publishing Pty Ltd

ISBN 9780649719334

Text-Book of Anatomy and Physiology for Nurses by Diana Clifford Kimber

Except for use in any review, the reproduction or utilisation of this work in whole or in part in any form by any electronic, mechanical or other means, now known or hereafter invented, including xerography, photocopying and recording, or in any information storage or retrieval system, is forbidden without the permission of the publisher, Trieste Publishing Pty Ltd, PO Box 1576 Collingwood, Victoria 3066 Australia.

All rights reserved.

Edited by Trieste Publishing Pty Ltd.
Cover @ 2017

This book is sold subject to the condition that it shall not, by way of trade or otherwise, be lent, re-sold, hired out, or otherwise circulated without the publisher's prior consent in any form or binding or cover other than that in which it is published and without a similar condition including this condition being imposed on the subsequent purchaser.

www.triestepublishing.com

DIANA CLIFFORD KIMBER

**TEXT-BOOK OF
ANATOMY
AND PHYSIOLOGY FOR
NURSES**

TEXT-BOOK
OF
ANATOMY AND PHYSIOLOGY
FOR NURSES

COMPILED BY

DIANA CLIFFORD KIMBER

GRADUATE OF BELLEVUE TRAINING SCHOOL; ASSISTANT SUPERINTENDENT NEW YORK CITY
TRAINING SCHOOL, BLACKWELL'S ISLAND, N. Y.; FORMERLY ASSISTANT
SUPERINTENDENT ILLINOIS TRAINING SCHOOL, CHICAGO, ILL.

QM26
K49
1902

New York

THE MACMILLAN COMPANY

LONDON: MACMILLAN & CO., LTD.

1903

All rights reserved

COPYRIGHT, 1893,
By MACMILLAN AND CO.

COPYRIGHT, 1902,
By THE MACMILLAN COMPANY.

Set up and electrotyped September, 1894. Reprinted November, 1894;
February, August, 1895; January, November, 1896; July, December,
1897; September, 1898; July, 1899; February, October, 1900; March,
1901.

New edition, revised, printed February, October, 1902; February, Octo-
ber, 1903.

Norwood Press
J. S. Cushing & Co. — Berwick & Smith
Norwood Mass. U.S.A.

Affectionately Dedicated

TO MY

FRIEND, SCHOOLMATE, AND SUPERINTENDENT

Louise Darche

GRADUATE OF BELLEVUE TRAINING SCHOOL

AND

SUPERINTENDENT NEW YORK CITY TRAINING SCHOOL

BLACKWELL'S ISLAND, N.Y.

The following illustrations have been copied from Quain's "Anatomy" and Schäfer's "Essentials of Histology," and are used in this work by permission of the authors and publishers of those books, viz.: Figs. 4, 5, 8, 10, 12, 14, 51, 53, 64, 69, 83, 86, 103, 110, 117, 121, 127, 128.

PREFACE TO SECOND EDITION.

It is now seven years since the first edition of this "Text-book on Anatomy and Physiology for Nurses" was issued, and in order to bring the book up to date it has become necessary to revise it.

That this revision has been accomplished with, I trust, success, is almost entirely owing to the kind assistance given me by Mr. T. Pickering Pick, and by Percy M. Dawson, M.D., Assistant Professor of Physiology in the Johns Hopkins University, Baltimore. To the latter I am indebted for the whole recasting, and in large measure rewriting, of the chapter on the Nervous System, and also, to a slighter extent, of Chapters I. and XIX. Indeed, so greatly is this revision the work of Dr. Dawson that I should have been glad, had I been allowed, to place his name with mine on the title-page.

The chapter on the Nervous System has been transferred to its usual position in such text-books, namely, following the chapter on Muscles, but it is, of course, possible for those who prefer the old arrangement to take this chapter later in the course of study.

A number of new drawings have been made specially for this edition, including ten original ones by Dr. Dawson; also, to all the weights and measures, according to the English System, have been added their equivalents in the Metric System. It should be noted that the calculations are based upon the standard of weights and measures adopted by the United States, and not upon those of the British Pharmacopœia.

November 12, 1901.

D. C. K.

CONTENTS.

ARRANGED IN CHAPTERS AND LESSONS.

	PAGE
CHAPTER I.	
(LESSON 1.)	
Introductory — General Outline of the Body ; Structural Elements of the Body ; the Cell	1
CHAPTER II.	
(LESSON 2.)	
Organs, Tissues, Cells ; Epithelial Tissues ; Stratified ; Transitional ; Simple	7
CHAPTER III.	
(LESSONS 3 AND 4.)	
Connective Tissues : Connective Tissue Proper ; Adipose Tissue or Fat ; Cartilage ; Bone	13
CHAPTER IV.	
(LESSONS 5, 6, AND 7.)	
The Skeleton	23
CHAPTER V.	
(LESSON 8.)	
The Joints	48
CHAPTER VI.	
(LESSONS 9, 10, AND 11.)	
Muscular Tissue : Striated or Striped ; Non-striated or Plain ; Attachment of Muscles to Skeleton ; Prominent Muscles of the Head and Trunk ; Prominent Muscles of the Limbs	53
CHAPTER VII.	
(LESSONS 12, 13, AND 14.)	
Nervous Tissue : the Neurone or Nerve-Cell ; Anatomy of the Nervous System ; Physiology of the Nervous System ; Reflexes	74

NOTE. — In most training schools in America instruction in class is given from October 1 to June 1, or for thirty-eight consecutive weeks; the lessons in this text-book can be conveniently mastered in the first year's course, taken in the manner indicated in these introductory contents.

CONTENTS.

CHAPTER VIII.	
(LESSON 15.)	
The Vascular System: the Blood	PAGE 95
CHAPTER IX.	
(LESSON 16.)	
The Vascular System continued: Heart; Arteries; Veins; Capillaries . . .	103
CHAPTER X.	
(LESSONS 17 AND 18)	
The Vascular System continued: Arterial Distribution; Venous Return . . .	115
CHAPTER XI.	
(LESSON 19.)	
The Vascular System continued: the General Circulation; the Pulse and Arterial Pressure; Variations in the Capillary Circulation	131
CHAPTER XII.	
(LESSONS 20 AND 21.)	
The Vascular System concluded: Lymphatic Vessels and Lymph; Lymphatic Glands and Bodies of Allied Structure	141
CHAPTER XIII.	
(LESSONS 22 AND 23.)	
The Respiratory Apparatus: Larynx; Trachea; Lungs; Respiration; Effects of Respiration upon the Air within the Lungs; upon the Air outside the Body; upon the Blood; Modified Respiratory Movements . . .	151
CHAPTER XIV.	
(LESSONS 24 AND 25.)	
Alimentation: <i>Section 1.</i> Preliminary Remarks on Secreting Glands and Mucous Membranes. <i>Section 2.</i> Food; Food Principles; Proteids, Fats, Carbo-hydrates, Water, Saline and Mineral Matters; Chemical Composition of the Body; Average Composition of Milk, Bread, and Meat; Concluding Remarks	164
CHAPTER XV.	
(LESSONS 26 AND 27.)	
Alimentation continued: the Digestive Apparatus; Alimentary Canal; Accessory Organs	175
CHAPTER XVI.	
(LESSONS 28 AND 29.)	
Alimentation concluded: Digestion; Changes the Food undergoes in the Mouth, Stomach, Small and Large Intestines; Summary of Digestion; Absorption	191