

HUMAN PHYSIOLOGY

VOLUME II

FOR PRECLINICAL MEDICAL AND DEGREE COURSES
IN PHYSIOLOGY

BY

CHANDI CHARAN CHATTERJEE B. Sc., M. D. (Cal.)

Formerly of the Department of Physiology, Medical College, Calcutta.

INDIA

MEDICAL ALLIED AGENCY

13/1B OLD BALLYGUNGE 2ND LANE

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Dedicated to the Memory of
my
Father and Mother

C. C. CHATTERJEE

LIST OF EDITORS

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PUBLISHER'S NOTE

The Publisher sincerely owes an apology to his patrons, teachers, students and the public for the delay in publishing this volume.

Physiology is a complicated subject in its nature and character and more so due to fresh discovery frequently made of new materials in its various fields. As such the revision of text books on the subject on careful scrutiny which is as essential as imperative for the medical students, if not for the medical world, has taken some time. Human Physiology by Dr. Chandi Charan Chatterjee which made its first appearance in July 1951 has still been enjoying profound appreciation from the teachers and the taught alike.

In preparing this tenth edition of Volume II, the subject matter has been thoroughly revised edited and enlarged particularly on Nervous System and special senses.

In bringing out this Edition, valuable contributions by Dr. T. R. Abbott, M. B. M. R. C. S., L. R. C. P., F. F. A. R. C. S., Consultant Anaesthetist, Royal Liverpool Childrens Hospital, U.K. and Dr. Sadhan Chandra Roy, M. B. B. S., M. S. (Cal.), M. Ch. (Cal.), Cardio. Thoracic Surgeon, Gandhi Memorial Hospital, Kalyani, Nadia, W. B. Assistant Professor of Cardio Thoracic Unit, Nilratan Sarkar Medical College & Hospital Calcutta, are gratefully acknowledged. We are also profoundly indebted to many other distinguished scholars for their help for the issue of this tenth edition including in particular. Dr. H. L. Saha, M. B. B. S' (Cal.) Ph. D. (Birmingham) F. S. M. F., Ex. Dean Faculty of Medicine, University of Burdwan, Ex. Director of Health Services, Govt. of West Bengal, Formerly Professor of Physiology, Nilratan Sarkar Medical College and Hospital, Mr. P. N. Mitter Solicitor, Mr. D. P. Ray Advocate, Late K. L. Chatterjee Principal, City College of Commerce and Business Administration.

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In spite of our honest attempts in making the book as faultless as possible, some printing mistake might have crept here and there and we crave co-operation of the readers to point out the same for correction in future. Constructive criticism with concrete suggestions for improvement of the book will highly be appreciated.

For the consequential inflation of price index, we are compelled to enhance the price of the book and for which we beg to be excused.

RATHAJATRA
Dated 20th June, 1985.

Sincerely
MAYA CHATTERJEE
ASHOK KUMAR CHATTERJEE
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