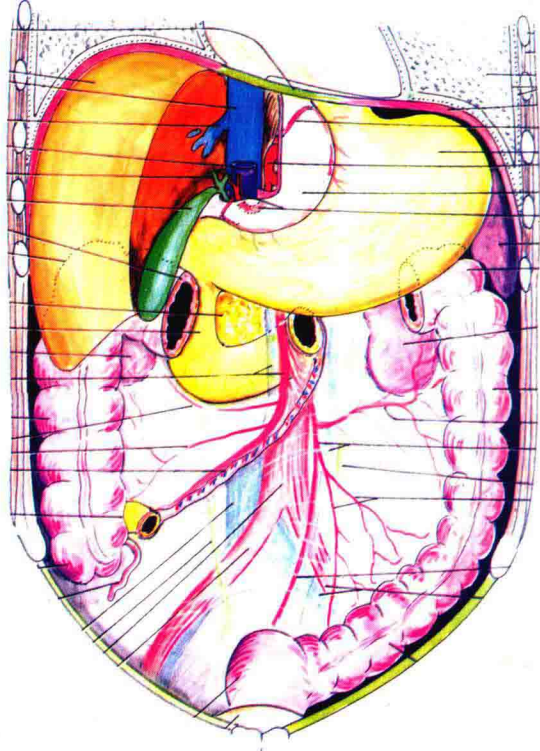


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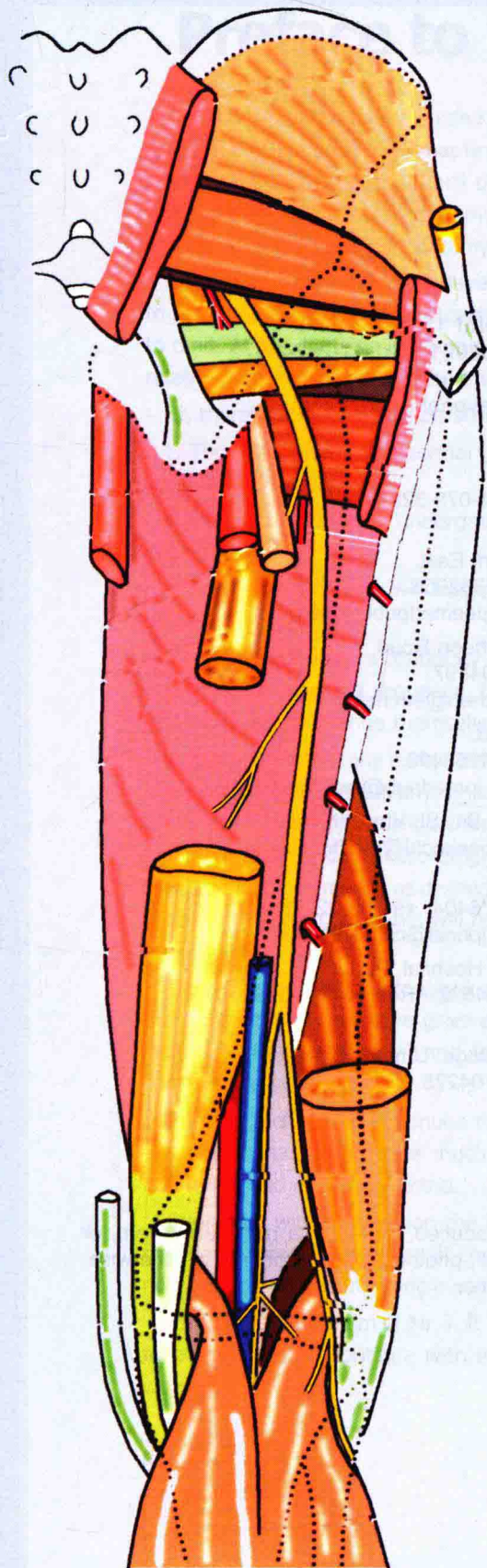
Inderbir Singh



Textbook of
ANATOMY
With Colour Atlas

JAYPEE

Volume Two
Thorax
Abdomen
and Pelvis



Textbook of

ANATOMY

With Colour Atlas

FOURTH EDITION

Inderbir Singh

Volume Two

JAYPEE

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Textbook of Anatomy with Colour Atlas (Vol. 2)

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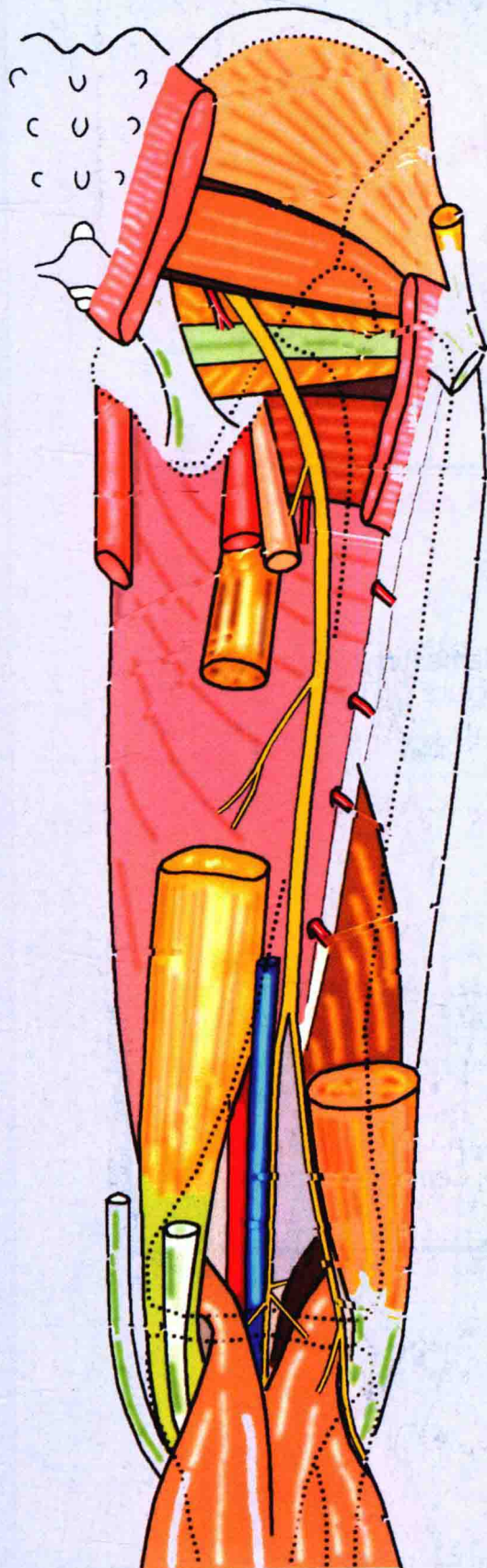
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Preface to the Fourth Edition

The considerations that guided the preparation of the first edition of this book remain unchanged (See preface to that first edition). After the publication of that edition it became known that the Medical Council of India had decided to reduce the duration of the first professional M.B.B.S course from eighteen months to twelve, greatly reducing the time available for the study of Anatomy.

Inevitably, many facts that have traditionally been taught now have to be excluded. It is to be expected that different teachers will have their own ideas of what to teach and what to omit. At the same time, some gifted students will be able to assimilate much more, in a relatively short time, than others will find possible.

It, therefore, becomes imperative for an author to grade information into different levels.

1. The descriptions of essential features, which every student must know, are printed on a white background.
2. Details that a good undergraduate student should know are printed on a light blue background.
3. Further details that will interest bright students and post-graduates are printed on a yellowish background.

However, to preserve continuity of narration, matter belonging to all the three categories is given in appropriate sequence. It is recommended that students reading the text for the first time should confine themselves to the main matter (white background).

It is accepted that any such classification can never be perfect; and teachers will inevitably differ on whether there is any sense in attempting such grading; or on what facts should fall under each category. Individual teachers will, therefore, have to decide this for themselves and guide their students accordingly. All that I have done is to provide a sample classification that teachers may modify as desired. In those institutions where such guidance from teachers is not forthcoming, students will be well advised to follow the grading as presented in this book.

I take this opportunity to thank all teachers and students who have pointed out errors in the third edition, and have given suggestions for improvement. I am specially obliged to Prof. R.N. Bajpai (Kanpur) and to Prof. B. Issac (Vellore) for their highly relevant and constructive suggestions.

Printing technology continues to make rapid advances and taking advantage of these this edition has been made much more attractive. A majority of illustrations have been improved, and errors corrected.

Beginning with this edition the book is now being made available in two formats. The traditional three volume format continues to be available. In addition the complete book is now also presented in a single volume.

I find the enthusiasm of Mr. J. P. Vij, extremely infectious. At my age of 78, he is still able to enthuse me to continue with my writing activities. My gratitude to him is beyond all words.

Preface to the First Edition

Textbooks of anatomy (like the subject itself) have the unenviable reputation of being dull and boring. This book makes an attempt to (hopefully) change this image. The emphasis throughout the book is on a picture memory rather than a verbal one; and on understanding of facts rather than their cramming. The author tries to take his young reader (figuratively) by the hand; and lead him, or her, through a journey of discovery that is as interesting as it is informative.

It is with this objective that this book incorporates a colour atlas. The atlas is realistic to the extent that normal contours and relationships are maintained in the illustrations; but it is schematic in that some structures present in the field of dissection are omitted, or are delineated more clearly than is possible to see in actual dissections. In describing any part of the body, the region is first reviewed using the atlas figures as a guide. This is followed by detailed consideration of individual structures.

For the medical student the study of anatomy is not an end in itself. It is a necessary beginning to the study of physiology, pathology, and the signs and symptoms of disease. The subject acquires interest if the student is made aware of the clinical importance of what he studies in the anatomy class room. This is why there has always been emphasis on what has been called 'applied anatomy'. However, many surgeons and physicians feel that much of what goes under the name of traditional applied anatomy is obsolete, and has to be unlearned. In this book, therefore, the emphasis is on providing students some examples of clinical correlations of anatomical structures. Instead of spreading out this information in small bits throughout the book a separate chapter is devoted to clinical correlations at the end of each major part.

I shall be grateful to students and teachers who point out errors, typographical or factual, and shall welcome suggestions for improvement.

I am grateful to the many students and colleagues who have encouraged me in my book writing endeavours, and this book might never have been written but for their good wishes and encouragement.

INDERBIR SINGH

Rohtak, January 1995

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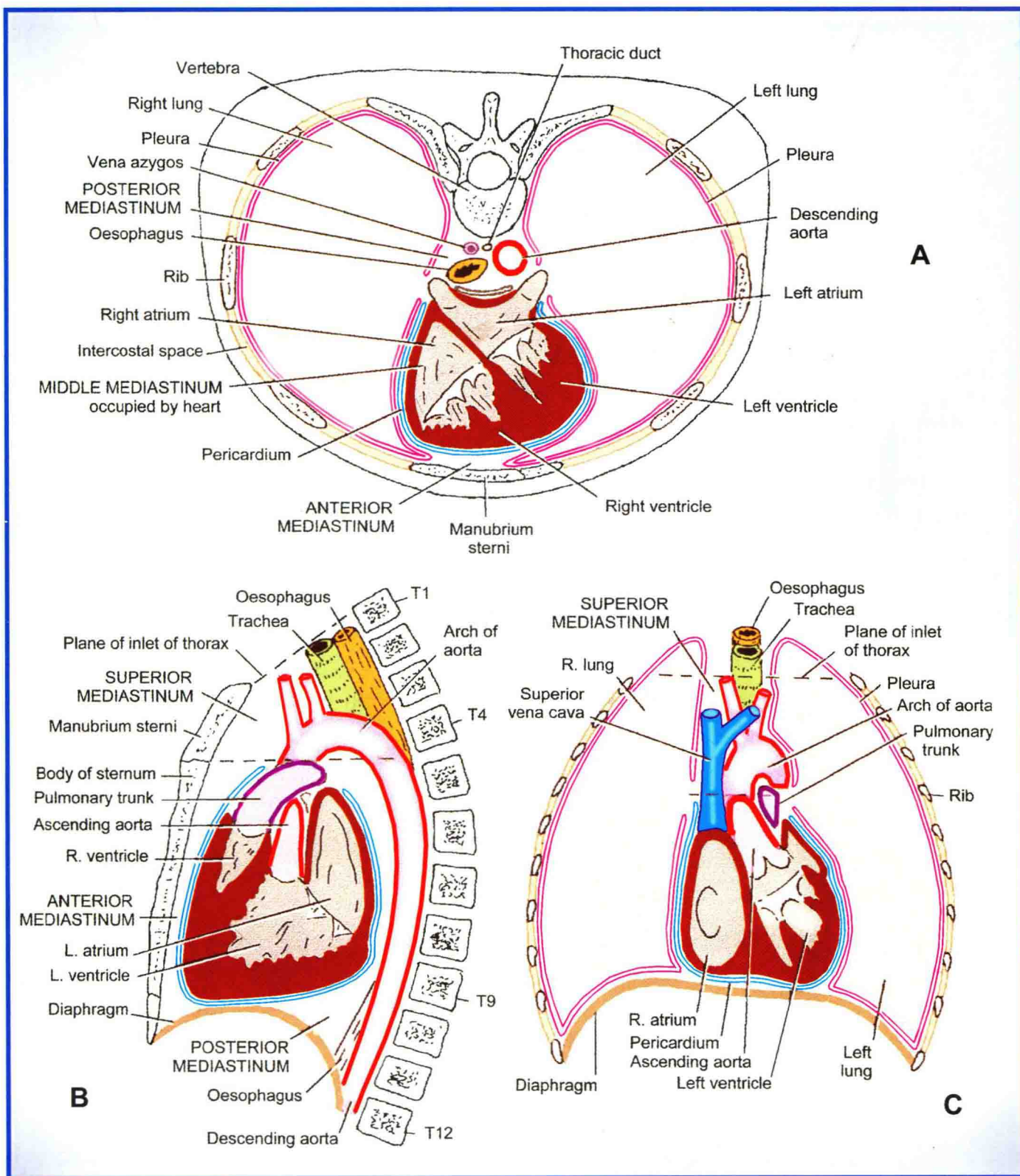


Fig. 27.1A. Schematic transverse section through the thorax showing its important contents.

Fig. 27.1B. Schematic sagittal section across the thorax to show the subdivisions of the mediastinum.

Fig. 27.1C. Schematic coronal section across the thorax to show its main contents.

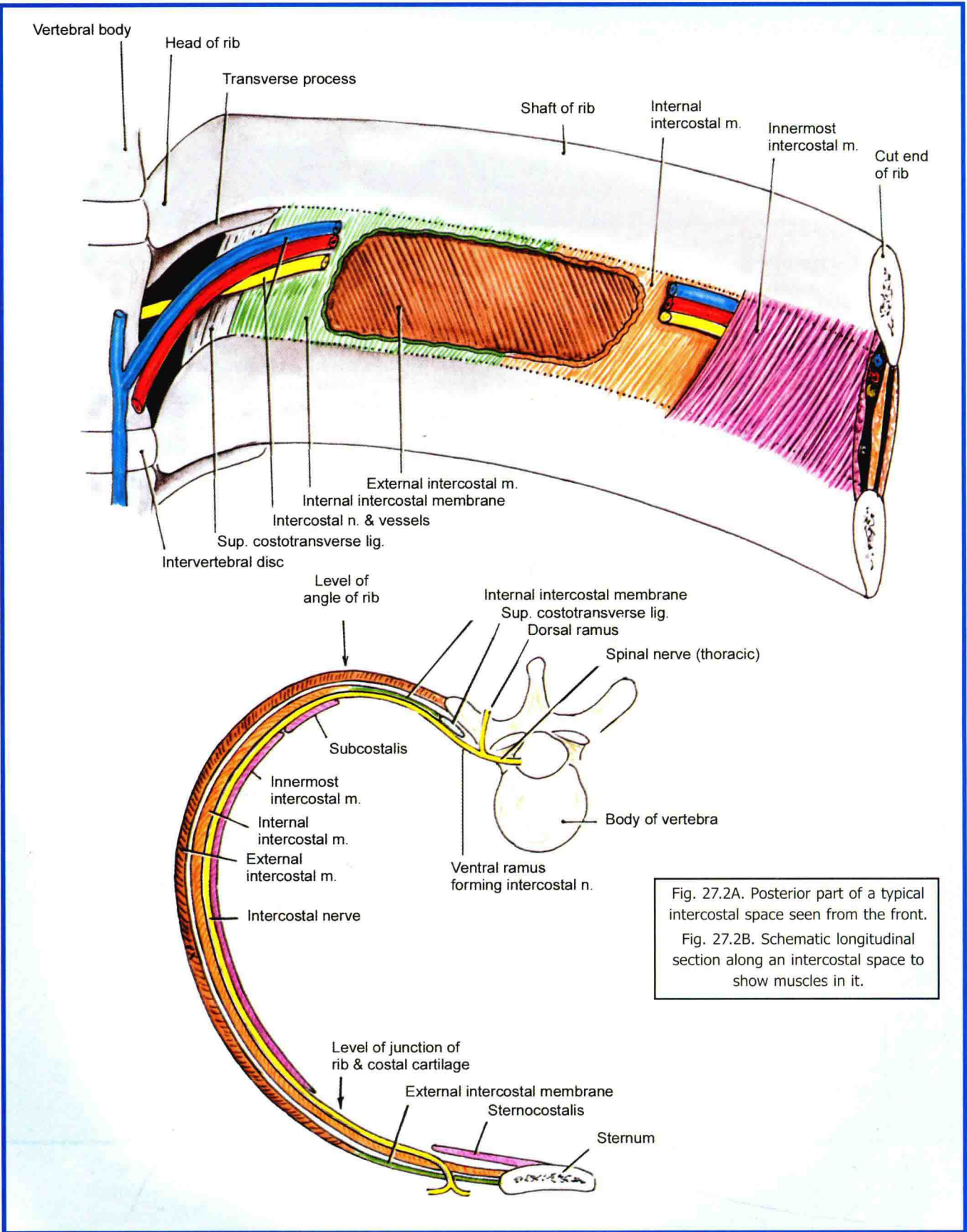


Fig. 27.2A. Posterior part of a typical intercostal space seen from the front.
Fig. 27.2B. Schematic longitudinal section along an intercostal space to show muscles in it.

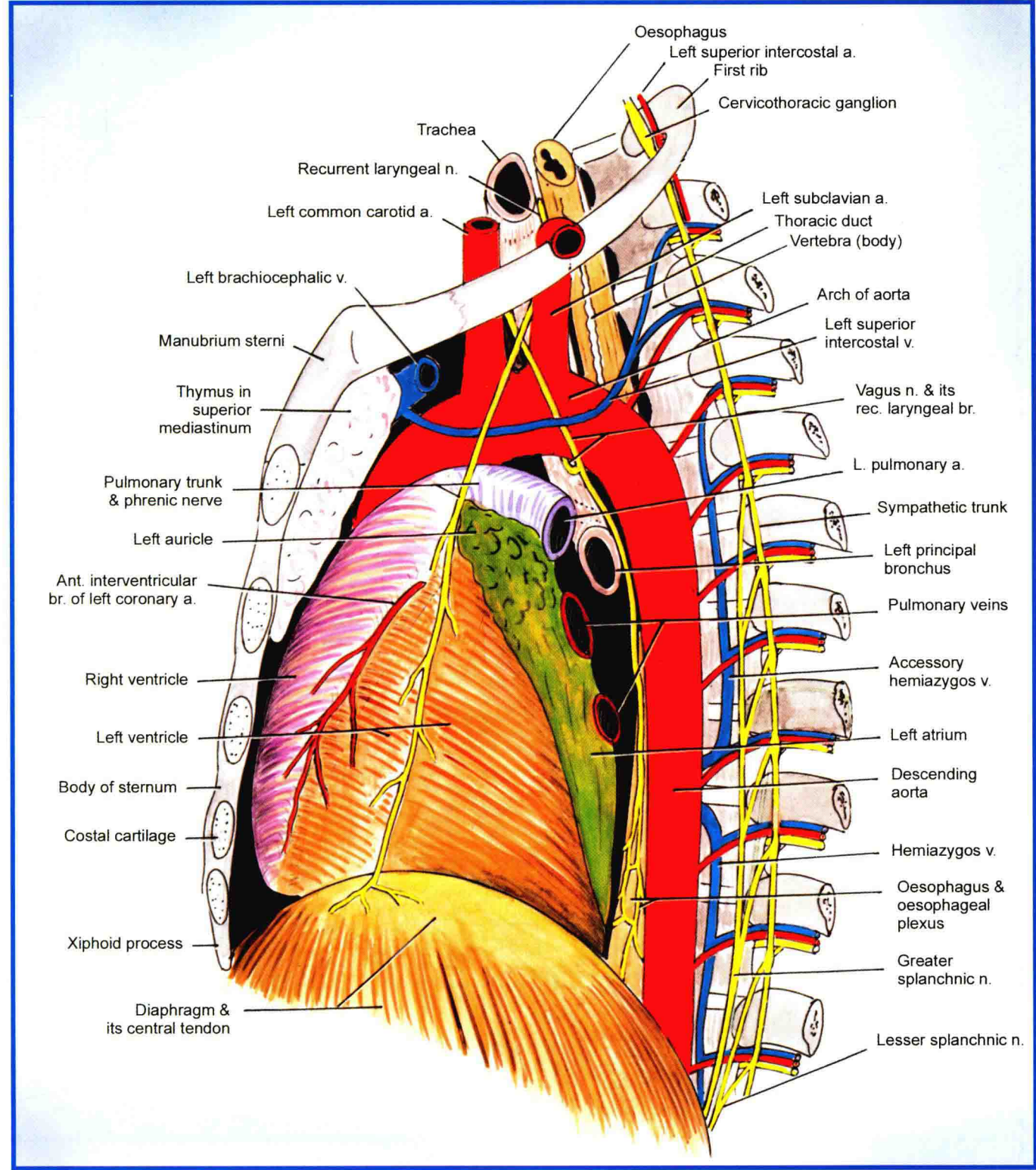


Fig. 27.3. Mediastinum viewed from the left side.

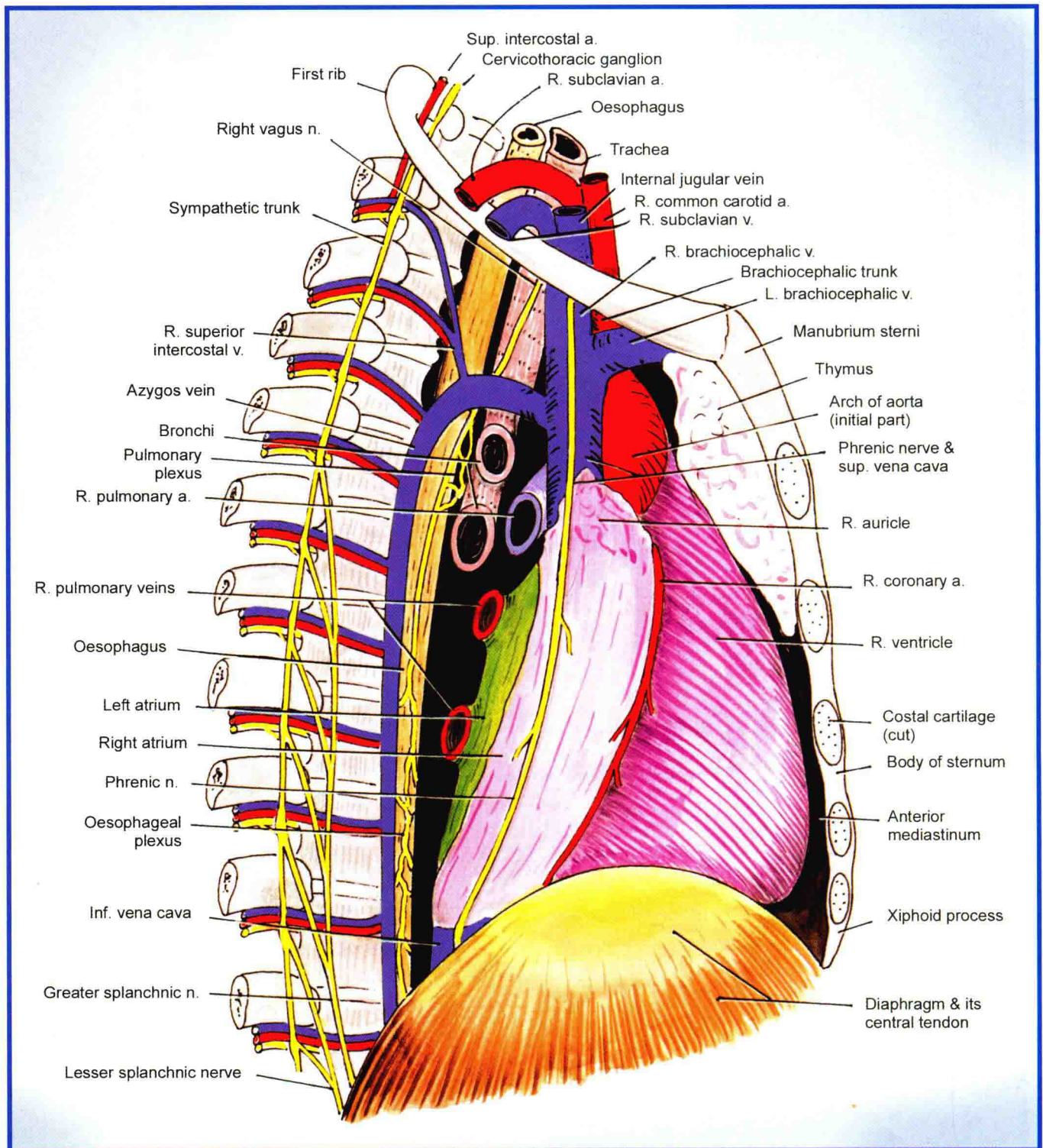


Fig. 27.4. Mediastinum viewed from the right side

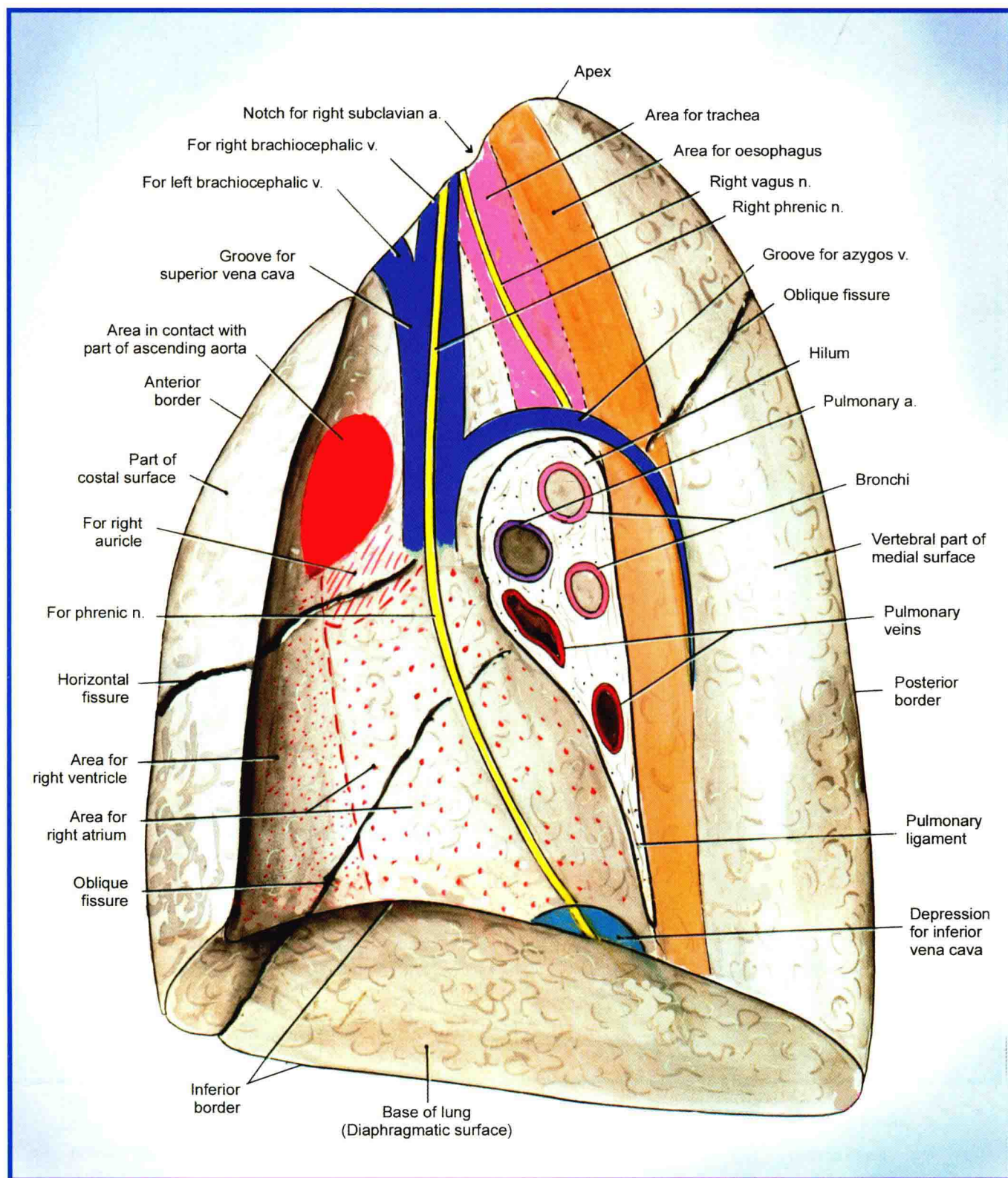


Fig. 27.5. Right lung viewed from the medial side showing areas related to various structures.

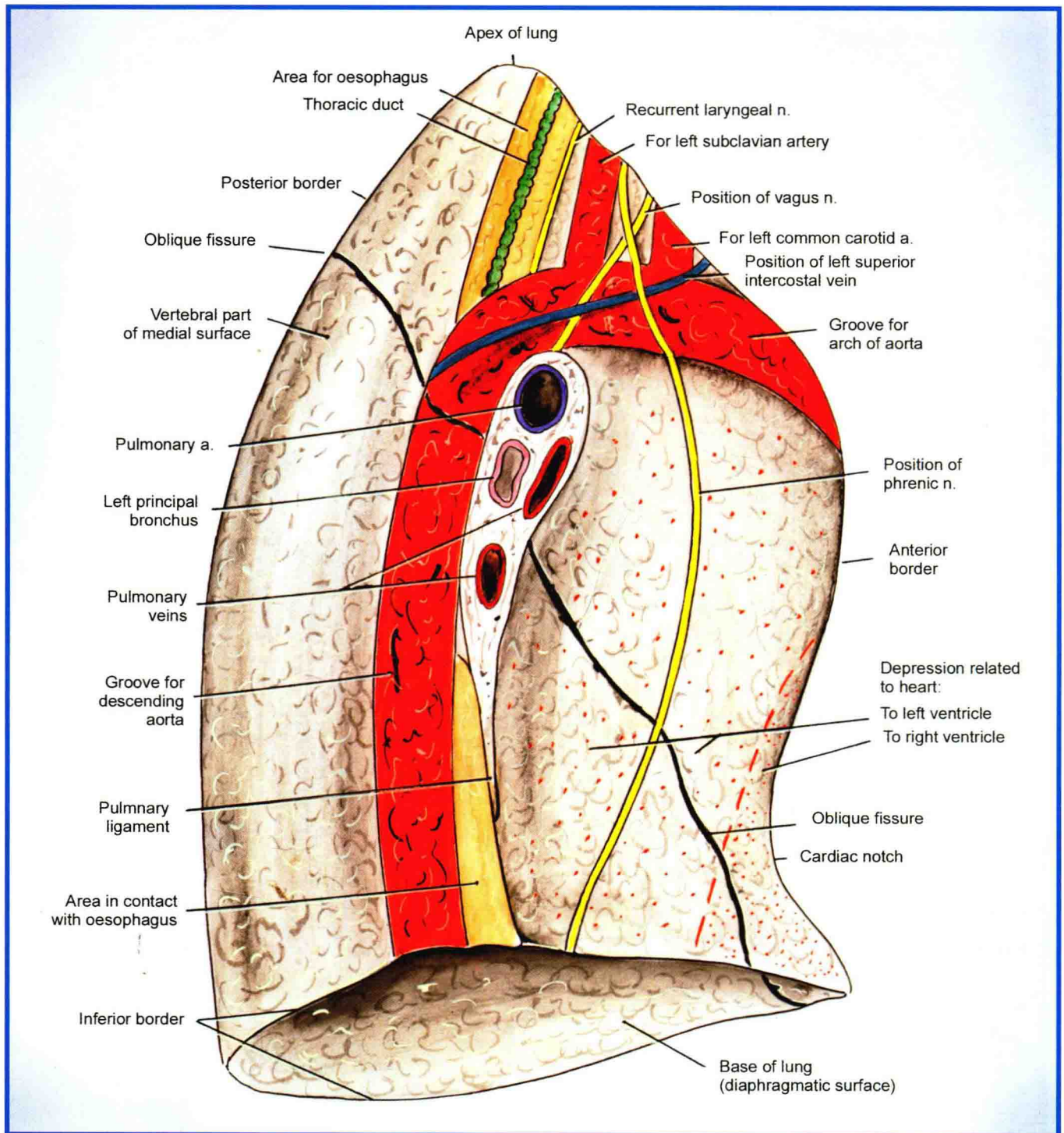


Fig. 27.6. Left lung viewed from the medial side showing areas related to various structures.

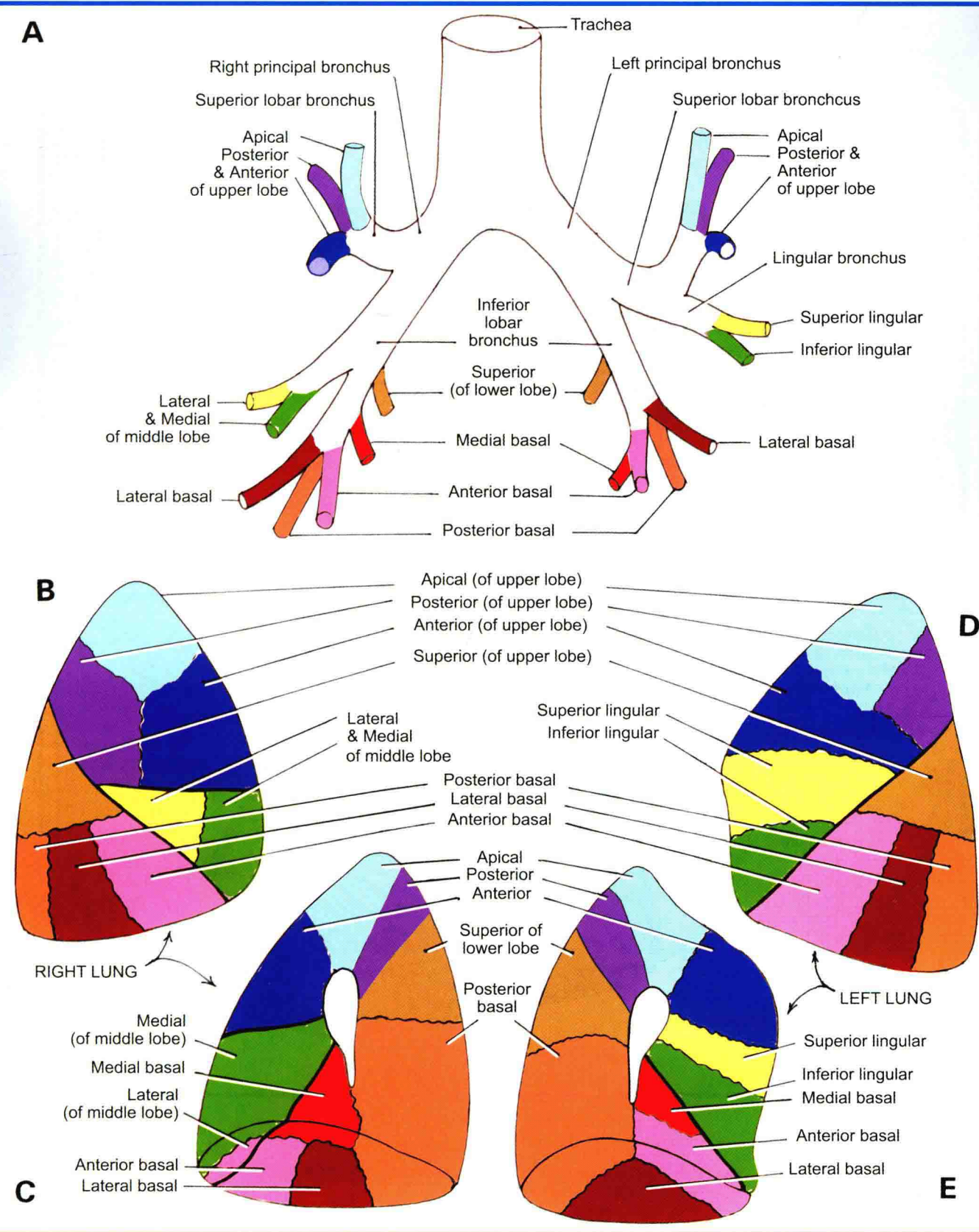


Fig. 27.7A. Scheme to show the bronchial tree as seen from the front.

Fig. 27B to E. Bronchopulmonary segments of the right and left lungs.

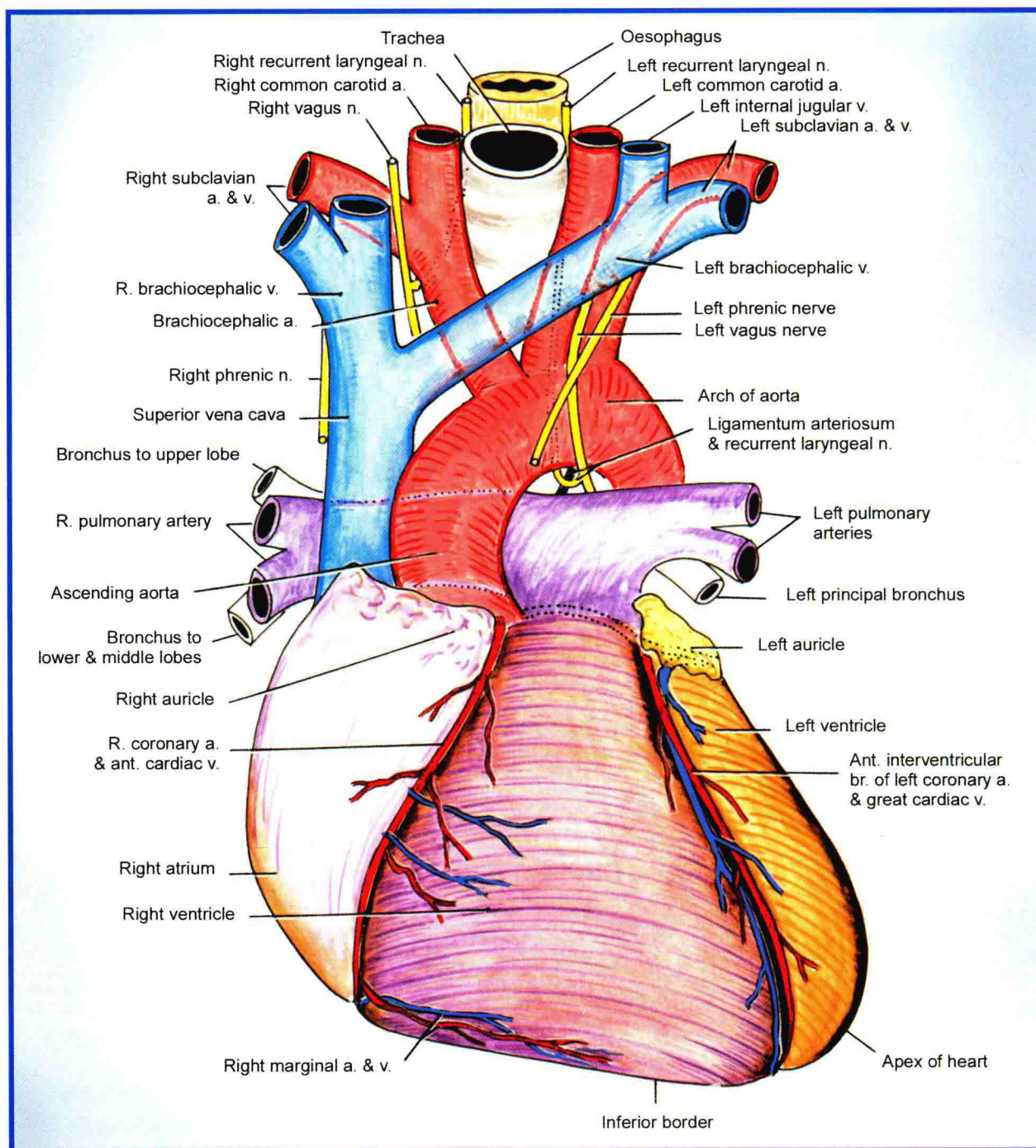


Fig. 27.8. Heart and superior mediastinum viewed from the front.

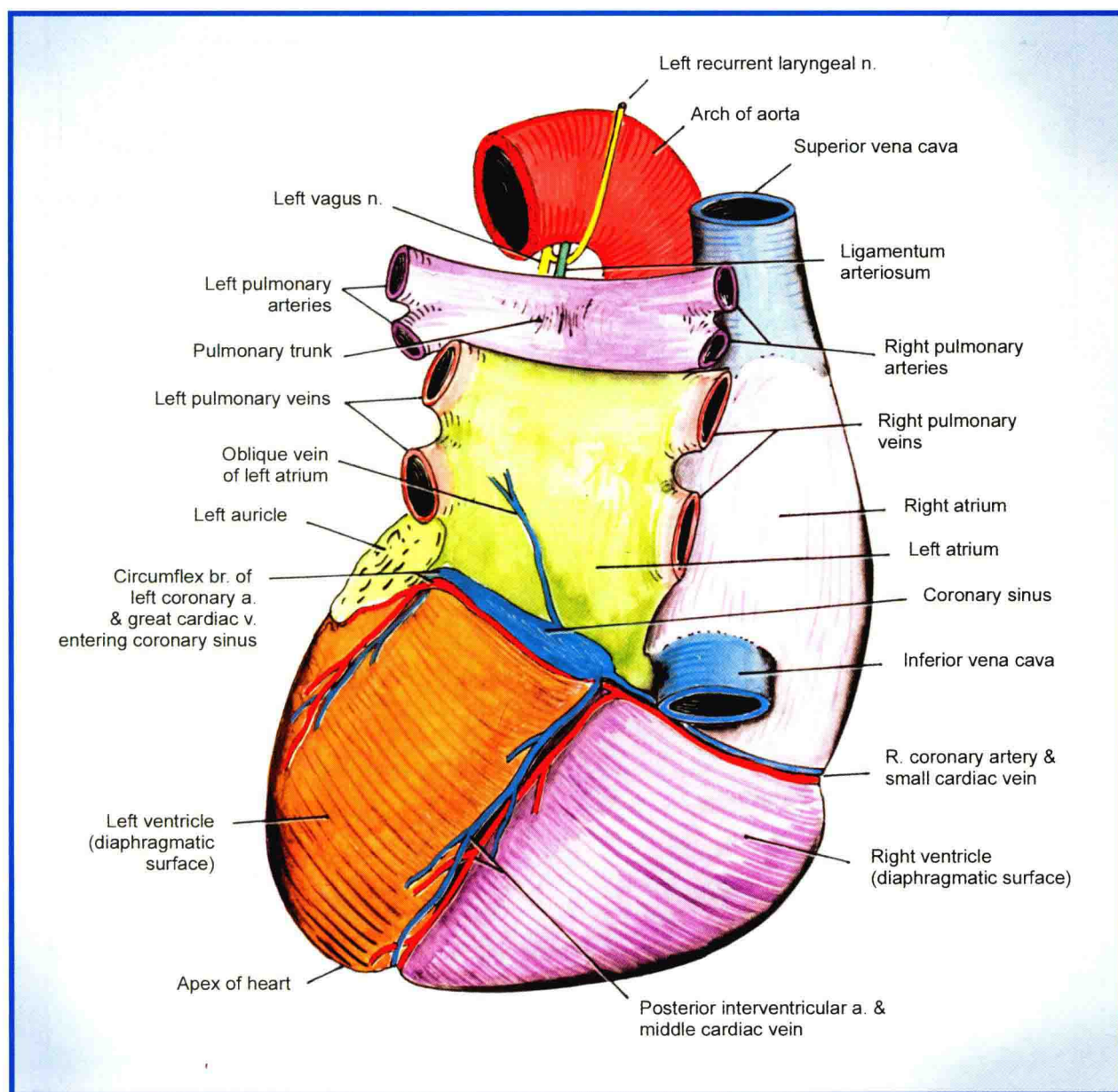


Fig. 27.9. Heart viewed from below and behind.