

# Endoscopic Sinonasal Dissection Guide

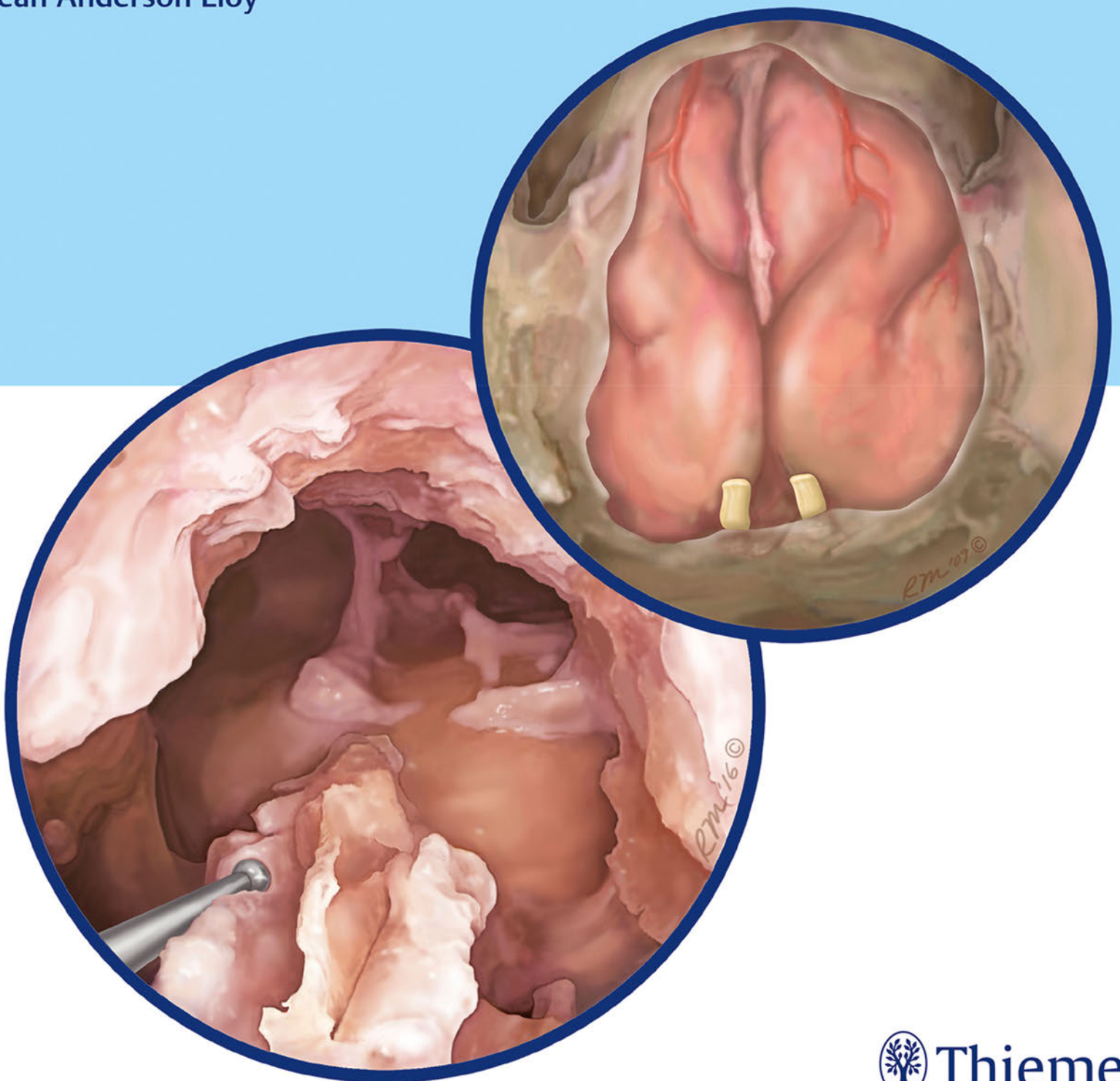
Including Orbit and Skull Base

Roy R. Casiano

Islam R. Herzallah  
Jean Anderson Eloy

Second Edition

plus videos



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# Endoscopic Sinonasal Dissection Guide

Including Orbit and Skull Base

Second Edition

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Dedicated to all otolaryngology residents, as well as rhinology and endoscopic skull base fellows:  
you represent our legacy to future generations of patients suffering from chronic inflammatory disorders  
and neoplasms of the nose, paranasal sinuses, orbit, and skull base.





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# Preface

This second edition of our dissection manual, like the first, is designed as a step-by-step pictorial reference manual, ideal for use during endoscopic surgical dissections in the cadaver laboratory. The introduction provides a historical perspective on the quest to develop useful endoscopic anatomic landmarks since the first detailed description of paranasal sinus anatomy in the early twentieth century. This manual not only provides a unique perspective of the lead author's 30 years of experience teaching endoscopic sinus surgical technique to residents and fellows, but also of all those rhinologists and endoscopic skull base surgeons before him, who have provided their own "surgical pearls" on how to endoscopically navigate safely through the nose, sinuses, orbit, and skull base.

In Section I, the authors briefly summarize the history of endoscopic sinus surgery, the anatomic landmarks and surgical pearls for a safe sphenoidectomy used by leading experts in the field over the past 30 years, as well as the lead author's own technique for a stepwise approach to the paranasal sinuses.

In Section II, the authors present simple to use and consistent anatomic landmarks to safely navigate the nose and paranasal sinuses, without the need for computer navigation. A thorough review of normal computed tomography and magnetic resonance imaging anatomy is followed by a discussion of endoscopic

dissections, systematically progressing from basic endoscopic surgical anatomy and techniques of the nose to a complete sphenoidectomy and frontal sinusotomy. Paying close attention to the anatomic landmarks discussed in each section, the surgeon should be able to safely navigate through all the paranasal sinuses and also identify the closely related critical anatomic structures of the skull base and orbit. The reader is encouraged to identify all the anatomic structures in the order in which they are presented throughout this manual, progressing from the easier (basic) dissections to the more advanced ones.

In Section III, the authors discuss identifying skull base and orbital structures that are critical to performing more advanced surgical techniques in these areas. This work requires prior dissection and de-epithelialization of the sinus cavities, and careful bone removal with osteotomes or with a cutting or diamond bur to fully visualize these structures.

Sagittal and endoscopic pictures, along with computed tomography correlations, are presented in each chapter, in order to give the reader the best perspective of this very complex anatomy. Key anatomic landmarks are repeatedly highlighted in each section throughout this manual, to stress their importance. But practice and repetition are the keys to gaining surgical expertise and experience in this area.

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## **Section I Introduction to Endoscopic Sinonasal Surgical Landmarks**

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