

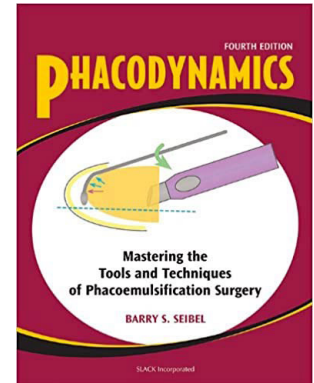
# DR. SEIBEL'S BOOK on Cataract and Lens Surgery

## Phacodynamics, Fourth Edition

Dr. Seibel's textbook, Phacodynamics, is a result of his commitment to innovation and excellence in eye surgery. An international bestseller on the subject of cataract and lens surgery, Phacodynamics explains in fine detail the methods and motivations behind each and every step for achieving ultimate individualization of cataract and lens surgery. Dr. Seibel pioneered this specialized method of study to help surgeons develop a deeper understanding of the fundamental surgical principles, as well as the minute details of technology.

- Over 300 informative figures and illustrations
- Learn the latest machine technologies and surgical techniques
- Identify and distinguish between flow pumps, vacuum pumps, and ultrasound power modulations
- Customize surgery for each patient

Phacodynamics has been THE textbook for surgeons learning cataract and lens surgery world-wide. It has been translated into multiple languages.



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Professional Book Division

## From the Publisher:

“Dear Dr. Seibel:

I wanted to follow up on the release of your new edition of “PHACODYNAMICS: Mastering the Tools and Techniques of Phacoemulsification Surgery, Fourth Edition.” The release of the book was another success for you! Over the years, your books have had a tremendous impact on ophthalmology and all of cataract surgery. **PHACODYNAMICS has become the bible for ophthalmologists worldwide.** Your signature style of illustration along with your unique presentation of clinical material, surgery, and technology make it a one-of-a-kind for cataract surgery, and medicine. Over the years, your books have had a tremendous impact on ophthalmology and all of cataract surgery. The sales of the book through the last 12 years continues to be great. It ranks as one of the top books ever in the history of our company for ophthalmology and **is number one for cataract surgery!** I believe you are the only author in the history of ophthalmology to have been both the sole author and illustrator of a textbook like yours, let alone into four editions! You should be proud of the international acclaim the book has and how **you have helped countless surgeons** to perform cataract surgery better on tens of thousands of patients. Thanks for your time, expertise, and attention to detail and education. The profession and medicine are better for it.”

– **John Bond, Vice President**  
**SLACK Incorporated Book Publishing**

## Reviews:

“This book will be utilized best by that cataract surgeon who wants to truly understand the technology that he holds in his hands. I am sure that this added level of comprehension would easily enhance any cataract surgeons capabilities.”

– **Leonid Skorin, Jr., MD, DO, FAOCO**  
**Journal of the Osteopathic College of Ophthalmology and Otorhinolaryngology**

“The other books tell you what to do. This book tells you why and how. The illustrations are superb, demonstrating clearly how phacoemulsification works and why some maneuvers must, necessarily, work better than others. This book is critical if you want to master the art and science of phacoemulsification.”

– **Paul S. Koch, MD, Koch Eye Associates, Warwick, RI**

“I learned more about phacoemulsification surgery (in this book) than in all previous course time. The text is brilliantly illustrated. The diagrams amplify and refine the written paragraphs. This is a book that every cataract surgeon must review. This book has my highest recommendation. I wish I had written it.”

– **Frederick S. Brightbill, MD Archives of Ophthalmology**

“As in the previous editions, Dr. Seibel demonstrates his unique gift for being able to simplify complex engineering concepts to a clinically understandable and practical level. His signature style of illustration gives us stepwise visual tools to understand what is otherwise happening too rapidly in real time.”

– **David F. Chang, M.D.**

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**Phacodynamics:** Mastering the Tools and Techniques of Phacoemulsification Surgery, Fourth Edition has been completely revised and substantially expanded to include detailed descriptions and illustrations of the latest machine technologies and surgical techniques available today.

New topics included that are unique to this Fourth Edition:

- Bimanual Microincision Phaco
- Ultrasound Power Modulations including Burst and Pulse Modes
- AquaLase and Laser Surgical Technologies
- Expanded Horizontal Chopping Techniques including PreChop
- Vertical Chopping Techniques and Instrumentation
- Bimanual Irrigation and Aspiration
- Phacodynamic Complications
- Phacodynamics of Surgical Instrument Design

This new edition not only covers the most up-to-date technology but is enhanced by improved schematic graphics, illustrations, and descriptions.

In addition to examining the intricate relationship between the surgeon and the phaco machine, this book provides an in-depth analysis of the basic mechanical physics of the surgical maneuvers and equipment as they combine to produce the best possible results.

The focus on technology centers on the relationships among flow rate, rise time, vacuum, and ultrasonics, as well as many other key surgical concepts. It details such topics as: machines, including a schematic machine; ultrasound; phaco tip angles; phaco needle dimensions and shapes; the logic behind setting machine parameters; and individual phaco techniques. Current information is provided on equipment and accessories, including new pumps such as the rotary vane pump and the scroll pump. For the first time, pumps are divided into flow-based and vacuum-based categories and then compared and contrasted for a better understanding. No matter which technique is used, this book leads you through each surgical situation with comprehensive clarity to demonstrate what the next step should be.

### **Phacodynamics Spanish Edition.**

Phacodynamics: Mastering the Tools and Techniques of Phacoemulsification Surgery, Spanish Edition

### **133 Slides used in Phacodynamics.**

Phacodynamics: Mastering the Tools and Techniques of Phacoemulsification Surgery, Third Edition Slide Set.

#### **Sections Include:**

- Machine Technology
- Logic of Setting Machine Parameters
- Overview of Phacoemulsification Techniques
- Irrigation and Aspiration Techniques
- Physics of Capsulorhexis

#### **Special Features:**

- Completely updated and expanded to reflect all the latest techniques and technology.
- Description of ultrasonics including new tip designs, styles, sizes, and the effects on fluidics.
- Includes a detailed look at the clinical application of fluidics.
- Detailed description and logic of chopping techniques including Dr. Nagahara's Chop Technique and the Seibel Chopper.
- Explains why to use specific methods.
- Categorizes and compares flow-based and vacuum-based pumps.
- Discussion and illustrations of ultrasound relating to nuclear density.
- Enhanced schematic graphics, illustrations, and descriptions.
- Includes a total of 133 color illustrations.

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