# 10 Future Trends

The ultimate goal of medicine is to make itself obsolete through its own development. Similarly, we may say that the goal of the eye surgeon is to develop methods which make the knowledge conveyed in this book unnecessary. And indeed, this development is well underway.

Our analysis of manipulations in *Eye Surgery* makes it plain where the key issues lie. The main problems in present-day ophthalmic surgery are the tissue deformations and displacements that are caused by surgical manipulations. These phenomena lead to discrepancies between the results that the surgeon would expect from his maneuvers and the results he achieves in the tissue. Consequently, the deformations and displacements that attend surgical actions must be anticipated and incorporated into the plan of operation. A large part of this book is concerned with such problems.

The deformations associated with *cutting* result from resistances and could be avoided by dividing tissues with ultrasharp instruments that cause no tissue displacement. Such instruments – weightless, ultrasharp, and practically without volume – are lasers, which are currently under development. The *uniting* of tissues can be accomplished without deformation as soon as a fast-setting, biologically compatible tissue adhesive becomes available. The *displacement* of tissues to assist manipulations can be avoided by applying the instrument directly to the intended site of action. Suitable microinstruments are already available and are being continually improved. *Visual monitoring* of the action will be greatly simplified once we are able to visualize previously invisible portions of the eye by endoscopic techniques. Finally, *spatial tactics* will be simplified when viscoelastic materials are made available in various grades of viscosity and elasticity. Volume stabilization could be achieved with these materials even under the action of large opposing forces.

As developments continue, it is certain that the eye surgery of the future will be vastly different from that known today. All who play a role in this development will one day note with satisfaction that it was fascinating to have been part of it.

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# Surgical Ophthalmology 1

Translated from the German by F. C. Blodi

1990. Approx. 595 pp. 446 figs. 53 tabs. Hardcover DM 560,– ISBN 3-540-52105-4

**Surgical Ophthalmology** is the most comprehensive work available on modern eye surgery as practiced around the world. The main focus of this two-volume manual is on operating techniques. All known surgical procedures, including laser methods, are painstakingly depicted step by step in atlas form. The requirements for a successful outcome of surgical treatment are also described in detail: indications, risks, complications, postoperative care. Pathogenesis is covered insofar as is necessary for proper understanding of the techniques portrayed, and accounts are given of the equipment employed and of anesthetic procedures.

The figures, drawn specifically for this book, are of remarkable quality. The exact placement and functions of instruments at crucial stages of surgical procedures are portrayed in dynamic sequences of illustrations.

No ophthalmologist wishing to expand his surgical repertoire or to compare methods in detail will want to be without this essential manual.

*In preparation:*

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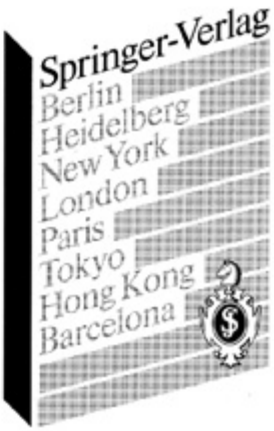
# Surgical Ophthalmology 2

1991. Hardcover. ISBN 3-540-52107-0

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**W. Seeger,** University of Freiburg

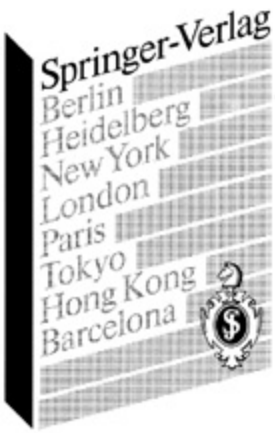
# Compressive Optic Nerve Lesions at the Optic Canal

## Pathogenesis – Diagnosis – Treatment

Collaborators: M. Bach, H.-R. Eggert, G. Greeven, J. DeGroot

1989. X, 138 pp. 88 figs. in 180 sep. illus., partly in color.
Hardcover DM 260,– ISBN 3-540-18838-X

This comprehensive monograph opens up sensational new diagnostic and therapeutic perspectives. The topographic information is presented with excellent anatomic preparations. The wide spectrum of symptoms taken from extensive clinical experience is critically analyzed and compared to the ophthalmological, neurosurgical, and neuroradiologic literature.
The monograph should be obligatory for the ophthalmologic and neurologic clinician, who is the first to be confronted with symptoms of optic nerve lesions. For the radiologist, it offers a clear, didactic overview of typical pathological changes of the most important lesions. For the neurosurgeon, the discussion of the optimal approach and intraoperative findings points to the possibility that early microsurgical intervention can achieve excellent functional results.




Prices are subject to change without notice.

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## G. Eisner: Eye Surgery

The second edition of this book has been completely revised to reflect the enormous developments in eye surgery during the last decade. It deals specifically with the geometrical and physical principles upon which surgical methods are based. Thus, it differs from the many books describing specific surgical techniques and shows not *what* to do, but *how* to do it.

New chapters cover space tactical problems and solutions, the basics of hydraulic systems and viscosurgical principles; other chapters include new insights on trephination, iris reconstruction, extracapsular surgery, phacoemulsification and anterior vitrectomy.

The technical foundations discussed here are essential for all intraocular surgeons because they help to develop a surgical way of thinking that will prove valuable in unexpected situations.