
Preface

It is with great pleasure that we present this completely revised English edition of our book *How Does MRI Work? An Introduction to the Physics and Function of Magnetic Resonance Imaging* only two years after publication of the first English edition. We are particularly pleased that our introductory textbook met with great approval in the English-speaking world and not just in the German-speaking countries. This success has been an enormous incentive for us to further improve and update the text. For this reason, we are now presenting a second edition. All chapters have been thoroughly revised and updated to include the latest developments in the ever-changing field of MRI technology. In particular, the chapter on cardiovascular imaging has been improved and expanded. We gratefully acknowledge the contribution of Daniel Nanz, PhD, the author of this chapter. Moreover, two completely new chapters have been added: "Fat Suppression Techniques" and "High-Field Clinical MR Imaging".

Notwithstanding these additions, the intended readership of our book remains the same: it is not a book for MR specialists or MR physicists but for our students, residents, and technologists, in short, all those who are interested in MRI and are looking for an easy-to-understand introduction to the technical basis of this imaging modality at the beginning of their MRI training.

The second English edition presented here corresponds to and appears together with the completely revised fifth German edition.

The authors gratefully acknowledge the support of numerous persons without whose contributions the new German and English editions of our book would not have been possible. First of all, we thank our readers, in particular those who bought and read the preceding versions and provided oral and written comments with valuable suggestions for improvement.

We should furthermore like to thank Klaas P. Pruessmann, PhD, and Johannes M. Froehlich, PhD, for their excellent introductions to parallel imaging and MR contrast agents.

Special thanks are due to our translator, Bettina Herwig, who very knowledgeably and with great care translated the entire text and provided valuable advice in preparing the new edition.

Finally, we would like to thank Springer-Verlag, in particular Dr. U. Heilmann, W. McHugh, and Dr. L. Ruettinger, for their cooperation.

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