

Preface

The medicinal leech is a beautiful symbol of give-and-take and of sustainable resource management. *Hirudo medicinalis* is one of the oldest surviving animals on Earth. The first documented accounts of the use of leeches for medicinal purposes date back to the time of Hippocrates. There are two decisive factors in the survival of the “leech” species: a) the blood that it extracts from the host does not coagulate, and b) the leech bite is not painful. Hirudin, the anticoagulant compound in leech saliva, was isolated several years ago. In this modern age, hirudin is manufactured as a genetically engineered product, the efficacy of which has been tried and tested in large-scale, randomized controlled trials in a number of indications.

The retrospective on the therapeutic use of analgesic substances in leech saliva is a completely different story; these developments are still in their infancy, and the first systematic trials using live leeches were only conducted a few years ago. One phenomenon that was repeatedly observed during treatment and research with live leeches is that the relationship between leeches and humans is special. While the media would hone in on the “yuck factor,” we constantly observed a great public interest in natural healing methods, especially leech therapy. Hundreds of people responded to our calls for volunteers for leech studies in Essen, Germany. In most cases, we had more than ten times more willing candidates than we actually needed for the study. Therefore, we often asked ourselves: Could the human mind possess something like a phylogenic memory for the positive effects of leeching? One could almost think that humans subconsciously know that leeching is good for them. The systematic studies of leeching performed in the last five years support this theory, and the interest of patients in leech therapy has grown accordingly. This trend started in Germany and spread to other parts of the world following the publication of our leeching study in the *Annals of Internal Medicine* and, later, in *The New Yorker*. Thanks to these important articles on the medicinal leech and its therapeutic potentials, substantial interest in this ancient form of treatment has even spread to the USA.

After receiving numerous queries from Anglo-American countries, we ultimately decided to publish the present English edition of this book. By doing so, we would first like to offer scientific evidence to counteract the common misconceptions about leeches. Secondly, we would like to share our enthusiasm for the medicinal leech with others. Leeches are not disgusting creatures! They are classified as a medicinal product in Europe and as a medical device by the US Food and Drug Administration. Based on the scientific evidence, it no longer seems appropriate to classify the leech as a parasite—especially when one considers that humans have often pushed the leech to the verge of extinction because of its healing properties. As far as we are concerned, the leech is a “healing animal.”

Our special thanks go to the Karl and Veronica Carstens Foundation for their many years of support for medicinal leech research. We also would not want to miss this opportunity to thank their Director, Dr Henning Albrecht, who shared our visions of scientifically tested integrative medicine, as well as Rainer Lüdtke, biometrician, for his very competent advice regarding statistical questions.

On behalf of all the authors, we wish you interesting insights into leech therapy and many successful treatments.

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