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EDS.

# Contact Dermatitis

*4th Edition*



 Springer

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*Editors*

# Contact Dermatitis

**4th Edition**

With 345 Figures, 238 in Color  
and 180 Tables

 Springer

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# Dedication

*To Kelly for her  
continuous support  
of my scientific activities.*

**Peter J. Frosch**

# Preface

It is an unusual event for a textbook covering such a highly specialized field as contact dermatitis to be published in its fourth edition within a time period of 13 years. When the European and Environmental Contact Dermatitis Research Group was founded in 1985, one of the major goals was to edit a textbook of high scientific standard written by renown experts and keep it regularly updated. The greatest danger for a textbook is to become outdated – then it stays on the bookshelf and is rarely consulted. The continuous flow of new medicaments, the fascinating improvements in diagnostic image analysis and ever-changing operative procedures are the reasons for considerable knowledge deficits in old textbooks, often painfully experienced by young colleagues who look for advice in practice.

The sub-specialty of dermatology, contact dermatitis, has shown an impressive development over the last three decades. Scientific research groups have been founded in all major countries, national and international conferences are held at regular intervals, and several journals – peer reviewed and listed in data banks – are exclusively focusing on various aspects of contact dermatitis. The leading journal “*Contact Dermatitis*” has an impact factor of 1.7 and thus belongs in the ten top journals of dermatology.

One parameter of research quality is the number of acquired grants. If one leaves through the journals it is evident that our sub-specialty gets a great share of national and international research funds. A recent example is the multicenter research project on fragrances supported by the European Union with a considerable amount for 6 years.

Modern research in contact dermatitis is more than patch testing! In nearly every issue of “*Contact Dermatitis*” a new allergen is described. Starting with the observation of a keen clinician the culprit is characterized in cooperation with chemists after elaborative bioassay-guided investigations. Contact dermatitis is one of the major problems in occupational skin diseases. There, the differentiation between “irritant” and “allergic” is of high importance and may have profound consequences for the affected individual. In the past, reliable data on epidemiology were very limited. After the foundation of

national and international networks and the use of standardized methodology, a highly differentiated picture can now be painted; we know the major professions at risk, as well as the influences of age and various cofactors. This is a solid basis for preventive measures. A new allergen, described in one center, can now be tested on a large scale in a short time period. If the data evaluation shows an unacceptably high rate of sensitization in the exposed population, regulatory measures will be undertaken to protect the consumer. A recent example is the “methylidibromo glutaronitrile story.”

These and other issues of importance are covered in depth in the newest edition of this textbook. All chapters have been revised, many of them completely rewritten or considerably expanded. In order to increase the didactic value “core messages” are provided as often as possible. Furthermore, in some clinical chapters instructive case reports are given. As the novice is often lost in the jungle of references many authors have highlighted “Suggested reading” as valuable and pertinent literature.

Many new color figures have been added – most spectacular are those of the “temporary black henna tattoos” – some have to pay a high price with a life-long sensitization to *p*-phenylenediamine (including multiple cross-reactions) for this fad.

Many of those buying this textbook will also teach. Springer-Verlag and the editors would like to be of assistance in this task and therefore provide a CD-ROM containing all clinical photographs and important diagrams.

The editors are very grateful to all contributors. In times where the impact factor is an important incentive for publishing activities it is often difficult to motivate colleagues to write a book chapter. In our pursuit of continuous improvement we would like to ask all readers to comment and suggest further topics to be covered by the next edition of this textbook.

Last but not least we would like to thank Springer-Verlag, particularly Marina Litterer, for excellent support of this project.

July 2005  
The Editors

# Foreword to the Third Edition

So here it is, the third edition in nine years. This frequent revision of a textbook is well motivated by the impressive growth of the subspecialty.

The growth has been catalyzed by 1) the formation of national and international groups of clinicians and scientists interested in contact allergy and contact dermatitis; 2) the scientific production each year of 50–100 original articles in the journal *Contact Dermatitis* alone as well as papers and symposia at the flourishing European conferences; 3) the formation in many clinical departments of special units for environmental and occupational dermatology.

Early textbooks were the result of an amazing one-man/woman effort (Fisher, Cronin) and are still gold-mines of personally collected experiences. The present text emanates from world experts with special knowledge in a particular field. Because of the impressive development in several areas the volume has extended, the number of pages having increased by a third since the first edition.

It goes without saying that the text is primarily clinical. It might be presumed that contact dermatitis could be easily described on half a page. The great variation in clinical pattern, however, is amazing with regard to individual lesions and the grouping of lesions which are regularly influenced by the body region, by the particular irritant or allergen, or by the route and way of exposure, including the various expressions of systemic contact dermatitis. You learn with surprise that discoveries are still being made in this purely clinical field. Read and get wiser!

Historical aspects on contact dermatitis are continuously given in the running text. We need to keep in mind the fundamental knowledge acquired during the last century, not just to remember names of the

pioneers but also to acknowledge the scientific buildingstones which form the basis of present progress. During the last two decades major improvements have taken place in the prevention of contact dermatitis e.g. by controlling occupational environments (exposure to water and surfactants); by diminishing the presence of allergens (formaldehyde in clothing, methylisothiazolinones as preservatives, nickel in clothing and jewelry); and by changing the chemistry of allergens (chromates in cement). Read and respect!

Immunological and biotechnical research has recently given important contributions, presented here, so that the pathogenesis of allergic as well as irritant contact dermatitis now is more fully understood. The etiological diagnostics in individual cases has developed, not only by improving the century-old patch test method (new allergens, test reading routines, occlusive and non-occlusive alternatives), but also by introducing new investigative methods, e.g. non-invasive ones for the inflammatory process, and modern analytical techniques for chemicals such as allergens in colophony, fragrances and plastics. The final tables on contact allergens with advice for choice of test vehicle and concentration constitute an enormous source of practical information. Read and do it yourself!

The comprehensive text provides a wealth of information for those particularly interested in and working with patients suffering from contact dermatitis. It should, however, be available to all dermatologists, the disease being a great mimic of other dermatoses. Read and enjoy!

**Halvor Möller**



# Foreword to the Second Edition

The growth of contact dermatitis as a subspecialty of dermatology has been impressive in the past couple of decades. Each new textbook that is published reflects the considerable increase in information coming from many parts of the world. An important advance was made 3 years ago with the appearance of this new comprehensive textbook, brought to fruition from the contributions of nearly all the workers active in this field throughout Europe.

In the Foreword to the first edition, Dr. Etain Cronin described the greatest pitfalls of patch testing as the lack of knowledge in selecting the correct allergen and the difficulty encountered in interpreting the results. It is works such as this that bring together the knowledge of the past, in such a way that the reader/investigator can have readily available the information necessary to study the patients, patch test them, and interpret the results with accuracy and precision. Millions of patients worldwide experience contact dermatitis each year; not nearly enough of them are studied in detail to determine the precise cause of their affliction. In almost no other branch of medicine is it possible to pinpoint a specific, often re-

movable, cause of a recurring, disabling disease. With the assistance of the information that is so prolifically available in this text, physicians will be able to bring help to many of these patients.

The 22 chapters of this volume cover every aspect of contact dermatitis, even including the addresses of physicians worldwide who work in this field. This work brings together dermatologists from many different countries and is an excellent example of what can be accomplished by the cooperation of those from a variety of nationalities and languages; truly a "European union" of contact dermatology!

The editors, including the late Dr. Claude Benezra, worked with devotion and care in the creation of this fine book. Dr. Rycroft, especially, deserves congratulations for bringing everyone together and organizing this textbook, which will surely remain a model of its kind for many years.

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# Foreword to the First Edition

Ideally every patient with eczema should be patch tested and the importance of this investigation is now universally accepted. The simplicity of the technique belies its many pitfalls, the greatest being to lack the knowledge required to select the correct allergens and to interpret the results. The introduction, nearly 20 years ago, of the journal *Contact Dermatitis* greatly stimulated the reporting of the clinical side of contact dermatitis but a vast amount of laboratory work has also been published in other journals on the mechanisms and theory of these reactions. The literature on the subject is now quite vast and a comprehensive book on the clinical and research aspects of contact dermatitis has been sorely needed. This textbook was carefully planned to gather together what is known of the subject into a cohesive whole and it has succeeded admirably. It consists of 22 chapters written by 41 contributors, each selected for their special study of particular subjects. Every feature of contact dermatitis has been covered, be-

ginning with its history and even concluding with the names and addresses of those worldwide who have a specific interest in the subject. The text is illustrated and well laid out; it has been broken up into clearly demarcated sections making it easy to read and its information readily accessible. One's own writing concentrates the mind but editing the texts of authors from so many different countries was a task of considerable proportions. The editors are greatly to be congratulated, particularly Dr. Rycroft who has worked tirelessly to mould this multi-authored book into an integrated whole. This Textbook of Contact Dermatitis is an impressive achievement; it will instruct and help all who read it and stimulate many to take a greater interest in this fascinating subject.

**Etain Cronin**

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