

‘We need look no further than ourselves to find microworlds ripe for exploration; each of us provides a surface that supports an interactive microbial population, the location and composition of which is dependent upon the structure and metabolism of the layers that compose our skin.’

Thus begins a book that surveys the world of the skin and its microflora, in health and disease, and in animals as well as man. The approach is essentially an ecological one, moving from the physical and chemical properties of the skin as a microbial habitat, through a consideration of the various major groups of microorganisms associated with it, to an account of the complex associations between these microorganisms.

The skin flora in health is introduced as a prelude to the understanding of microbial skin disease, and the mechanisms of pathogenicity are explored as the major groups of infective skin conditions are reviewed. The principles of treatment, disinfection and prevention receive proper attention, as does the important topic of hospital-acquired infection, where the skin is so often implicated.

The text is accompanied by numerous tables containing a wealth of practical and experimental detail, and is extensively referenced. This is a book that will be essential to dermatologists, medical microbiologists, veterinarians and research workers in these fields.

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Frontmatter
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Contents

<i>List of contributors</i>	<i>page</i> ix
<i>Preface</i>	xi
1 The basis of the skin surface ecosystem <i>D. McEwan Jenkinson</i>	1
2 Nutrition of cutaneous resident microorganisms <i>K. T. Holland</i>	33
3 Physical factors affecting the skin flora and skin disease <i>M. E. McBride</i>	73
4 Coryneform bacteria <i>J. J. Leyden & K. J. McGinley</i>	102
5 Coryneforms as pathogens <i>J. J. Leyden & K. J. McGinley</i>	118
6 Staphylococci on the skin <i>W. C. Noble</i>	135
7 Staphylococci as pathogens <i>W. C. Noble</i>	153
8 Streptococci and the skin <i>M. Barnham</i>	173
9 Other cutaneous bacteria <i>W. C. Noble</i>	210
10 Fungi and fungal infections of the skin <i>R. J. Hay</i>	232
11 Bacterial and fungal skin disease in animals <i>D. H. Lloyd</i>	264
12 Viral skin disease in man <i>P. Morgan-Capner</i>	291
13 Viral skin disease in animals <i>D. H. Lloyd</i>	315
14 Microbial interactions on skin <i>R. P. Allaker & W. C. Noble</i>	331
15 Adherence of skin microorganisms and the development of skin flora from birth <i>R. Aly & D. J. Bibel</i>	355
16 Skin disinfection <i>H. Kobayashi</i>	373
<i>Index</i>	387

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Preface

The seminal book by Mary J. Marples *The Ecology of Human Skin* and that of W. C. Noble and Dorothy A. Somerville *The Microbiology of Human Skin* were monographs – attempts to encapsulate all the knowledge on a limited topic. This approach, which also attempted a comprehensive bibliography, is no longer feasible, perhaps no longer desirable. The reasons for this stem in part from a vastly increased knowledge of the components of the human skin flora and their role in disease of organs or systems other than skin, and in part from a recognition of the similarities and dissimilarities of the skin flora of mammals other than humans. Accordingly, it seemed appropriate to ask a number of those active in research to contribute a chapter on their areas of special expertise and to provide access to classical and recent publications without attempting a complete bibliography.

This should not be taken to imply that all is now known; we have a detailed knowledge of some areas but are almost totally ignorant in others. We do not know, for example, the role, at the molecular level, of skin lipid in promoting or preventing colonization of skin, even whether some lipid components are important for the host or the microbe. We know in exquisite detail the metabolic products of testosterone metabolism that contribute to axillary odour but have no adequate taxonomy by which to classify the coryneforms that are responsible for the metabolism. We know the DNA sequence of the epidermolytic toxins produced by some strains of *Staphylococcus aureus* yet do not know why this species colonizes the skin in atopic dermatitis.

Investigation of the skin microflora has its own intrinsic interest: the ecology of skin is as varied as that of any macrohabitat; yet we need to be able to maintain and manipulate this habitat in a safe manner. Our ability to tolerate therapeutic immunosuppression or an indwelling catheter or prosthesis may depend on our ability to manage well the habitat that is also our physical interface with the rest of the world.

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