

Jean Krutmann
Philippe Humbert
Editors

Nutrition for Healthy Skin

Strategies for Clinical
and Cosmetic Practice

 Springer

Contents

Part I: Nutrition and Skin: The Scientific Basis

- 1 Cutaneous Changes in Nutritional Diseases** 3
Matthias Schmuth and Peter O. Fritsch
- 2 Skin Aging** 15
Jean Krutmann
- 3 Non-melanoma Skin Cancer** 25
Mark Berneburg
- 4 Skin Barrier Function** 35
Peter M. Elias and Joan S. Wakefield

Part II: Functional Food for Skin Works: Intervention Studies in Humans and Animal Models

- 5 Botanical Antioxidants for Skin Protection: An Overview** 51
Farrukh Afaq and Hasan Mukhtar
- 6 Systemic Photoprotection by Carotenoids** 65
Wilhelm Stahl
- 7 Systemic and Topical Use of Green
Tea Polyphenols for Healthy Skin** 71
Aton M. Holzer, Nabiha Yusuf, Brandon Tisdale,
Santosh K. Katiyar, and Craig A. Elmets
- 8 Flavonoid-Rich Nutrients for the Skin** 85
Wilhelm Stahl
- 9 Omega-3 Fatty Acids and Skin** 91
Suzanne Margaret Pilkington and Lesley Elizabeth Rhodes
- 10 Potential Benefits of Soy for Skin, Hair, and Nails** 109
Robert M. Blair and Aaron Tabor

11 Photoprotection by Nicotinamide	119
Diona L. Damian and Gary M. Halliday	
12 Probiotics and Regulation of Immune Responses	129
Josette Péguet-Navarro	
13 Prebiotic Cosmetics	137
Rainer Simmering and Roland Breves	
14 Micronutrients for Hair and Nails	149
E. Haneke and Robert Baran	
Part III: How to Use Functional Food in Clinical Dermatology	
15 Legal Aspects: How Do Food Supplements Differ from Drugs, Medical Devices, and Cosmetic Products?	167
Helena Karajiannis and Catherine Fish	
16 How to Prove Safety and Efficacy in Nutrition-Based Intervention Studies for Human Skin	181
Christiane Montastier, Sophie Mac-Mary, Jean Krutmann, and Philippe Humbert	
17 Beauty from Inside: Nutrition-Based Strategies in Cosmetic Dermatology	189
Philippe Humbert, D. Binda, S. Robin, and Jean Krutmann	
Appendix	197
Index	203