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Titolo	Ultraviolet Light in Human Health, Diseases and Environment // edited by Shamim I. Ahmad
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Collana	Advances in Experimental Medicine and Biology, , 0065-2598 ; ; 996
Disciplina	574.19154
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Livello bibliografico	Monografia
Nota di contenuto	History of UV lamps, types and their applications -- UV light induced generation of reactive oxygen species -- UV-induced molecular signalling skin cancer -- Xeroderma pigmentosum Group A (XPA) irradiation -- Impact of UV light on vitiligo -- Polymorphous light eruption -- UV: skin defence- damage mechanisms -- Ultraviolet photobiology in dermatology -- UV A-1 in dermatological diseases -- Photodermatosis in pigmented skin -- Psycho neuroendocrine immune dermatology -- Synthesis of vitamin D by UV light -- Role of vitamin D in rheumatoid arthritis -- Asthma and allergy "epidemic" Vitamin D deficiency -- Vitamin D metabolism and atherosclerosis -- Vitamin D and type 2 diabetes mellitus -- Impact of UV light on genome stability and human health -- Vitamin D and cardiovascular diseases and risk factor -- Biofilm: microbial strategies for UV survival -- UV induced mutagenicity in water -- Role of UV disinfection site infections -- UV disinfection of waste water overflow -- Phototherapies of atopic dermatitis -- Phototherapy of Psoriasis -- UV irradiation of blood: The cure that time forgot -- UV to whole spectral range development -- Safety and efficacy of phototherapy in the management of eczema -- UV driven tanning salon: danger on main street -- Dose quantification in UV phototherapy.

This book is about the roles and importance of Ultraviolet (UV) light from sun and from man-made UV lamps in our daily life, on health and diseases, also its application in sterilization and treatment. The key words are: reactive oxygen species, DNA damage, UV mutagenicity, skin cancers, polymorphous light eruption, Xeroderma pigmentosum, vitiligo, psoriasis, rheumatoid arthritis, diabetes mellitus, metabolic syndromes, cardiovascular diseases, dermatology, photobiology, photodermatosis, vitamin D synthesis, vitamin D efficiency, water sterilization, blood sterilization, phototherapies, skin tanning and UV dosimeter. The book starts with introduction to UV light and the history of development of UV lamps and its applications. It then moves to describing the interaction of this light with biological components and the production of reactive oxygen species, their roles in cell signaling, cellular defense from foreign invaders, in mutagenesis leading to skin diseases including vitiligo, polymorphous light eruption and various forms of skin cancer. Then it presents the synthesis and importance of UV light and diseases, induced due to the deficiency of vitamin D. Roles of UV light in sterilization, disinfection, phototherapies are depicted in the next part and finally use and abuse of UV light in tanning salon and the availability and importance of use of UV dosimeter are highlighted. The three main focuses of this book are: - Damage to biological systems by UV light leading to certain skin diseases; most importantly skin cancers. - Importance of UV light in the in vivo synthesis of vitamin D when human bodies are exposed to it. - Diseases caused due to the deficiency of vitamin D and the use of UV lamps in phototherapy and sterilization processes. The editor has considerable experience in publishing medical books and has used it critically selecting the matters which will attract the readers from many areas of medical and non-medical fields. It is hoped that the materials presented in this book will give great benefit and will stimulate both novice and expert researchers in the field. The book gives excellent overviews of the current status of research and pointers to the future research achievements. Clinicians, medical general practitioners, technicians and staff working in UV related industries and especially those working in tanning salon should benefit from the information presented in safe handling of this light. .
