
BOOK REVIEW

International Agency for Research on Cancer Handbooks of Cancer Prevention - Volume 5: Sunscreens

Eds Harri Vainio, Franca Bianchini, ISBN 92 832 3005 1

The present publication, following on in the series of handbooks representing the results of expert reviews of the literature and opinions of IARC Working Groups on the evaluation of cancer preventive agents, provides an admirable in-depth analysis of all aspects of sunscreens as they relate to cancer and its prevention. Whereas the earlier handbooks, listed below, focused on chemopreventive agents with an inherent bias towards experimental pathology, the coverage here includes emphasis on human behaviour, both in terms of exposure to sunlight as a risk factor and use of sunscreens, whether chemical or physical, as protection.

Earlier Handbooks in the series:

- Volume 1 Non-Steroidal Anti-inflammatory Drugs (NSAIDS) 1997 ISBN 92 832 3001 9
- Volume 2 Carotenoids 1998 ISBN 92 832 3002 7
- Volume 3 Vitamin A 1998 ISBN 92 832 3003 5
- Volume 4. Retinoids 1999 ISBN 92 832 3004 3

A shortened version of the last was presented in the APJCP Volume 1 Number 3. The present volume is the result of a meeting at IARC on 11-18th April 2000, held with the support of the Foundation for Promotion of Cancer Research, Japan.. A total of 23 scientists participated, 5 from Australia, 6 from the USA/Canada, 11 from Europe and only one from Japan, with one further observer from Europe. The handbook is divided into 11 chapters, the first on sun and skin cancer in general.. In chapter two the chemical and physical characteristics of sunscreens are reviewed, this being followed by sections on human use, including behavioural considerations, and then metabolism of sunscreen components in various species.

The meat of the handbook occupies over 50 pages on cancer preventive effects in man and experimental animals and the available data on underlying mechanisms. The subsequent chapters focus on other beneficial effects, carcinogenicity and toxic effects, the data for the latter being relatively limited. Chapter 9 summarizes the findings clearly and concisely.

For the APOCP and the APJCP, the Recommendations listed in Chapter 10 are of particular interest and therefore deserve most attention here. The difficulties of research in this area, especially in human populations, are stressed with concrete suggestions as to prospective studies and randomized control trials. Biomarkers and risk assessment, as well as elucidation of detailed mechanisms of UV carcinogenesis are also highlighted, as well as the effectiveness and safety of sunscreens, and optimal usage and accuracy of its measurement. In the public health area, the necessity of a n ecological approach is stressed, taking into account all factors and differences between intentional and non-intentional exposure to sunlight.

The final section, on evaluation, concludes that there is inadequate or limited evidence of protection by sunscreen formulations in humans, despite clear results in experimental animals. Thus whereas topical application reduces risk of sunburns, it may extend the period of intentional exposure with a possible detrimental outcome. The book is an absolute must for any individual or library wishing to have access to all the facts.

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