

Chapter

Section

No./Title

1. Asbestos Exposure Assessment, Risk Identification, and Substitutes

C. Epidemiology of ARDs

6. A review of human carcinogens part C: arsenic, metals, fibres, and dusts

Author/Contributor

World Health Organization (WHO), International Agency For Research On Cancer (IARC)

Bibliographic ID

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, Volume 100, 2012, Lyon, France

Introduction

Asian context

Asbestos (chrysotile, amosite, crocidolite, tremolite, actinolite and anthophyllite) is the subject in pages 219-309. The information includes “chemical and physical properties”, “production and use”, “occurrence and exposure”, “regulation and guidelines”, “studies of cancer in humans”, “studies of cancer in experimental animals”, “other data relevant to an evaluation of carcinogenicity and its mechanisms” with reference information.

Critical appraisal

Currently this is the most recent updated IARC monograph in reference to asbestos.

Unique keywords

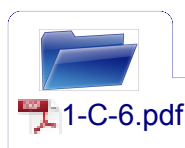
IARC, monograph, carcinogenicity, evidence, Group 1

Abstract

Background: In March, 2009, 27 scientists from eight countries met at the International Agency for Research on Cancer (IARC) to reassess the carcinogenicity of metals, arsenic, dusts, and fibres previously classified as “carcinogenic to humans” (Group 1) and to identify additional tumour sites and mechanisms of carcinogenesis.

Objective: The objective of the programme is to elaborate and publish in the form of monographs critical reviews of data on carcinogenicity for agents to which humans are known to be exposed and on specific exposure situations; to evaluate these data in terms of human risk with the help of international working groups of experts in chemical carcinogenesis and related fields; and to indicate where additional research efforts are needed.

Conclusion: All forms of asbestos (chrysotile, amosite, crocidolite, tremolite, actinolite and anthophyllite) are carcinogenic to humans (Group 1).



Annotation

Fact 1

- Globally, each year, an estimated 125 million people are occupationally exposed to asbestos (page 225).

Fact 2

- There is sufficient evidence that all forms of asbestos are carcinogenic to humans (Group 1).

Fact 3

- Asbestos causes mesothelioma and cancer of the lung, larynx, and ovary.

Fact 4

- Positive associations have been observed between exposure to all forms of asbestos and cancer of the pharynx, stomach, and colorectum.

Fact 5

- There is sufficient evidence in humans that Talc containing asbestiform fibres is carcinogenic to humans (lung and mesothelioma) (Group 1).

References

<http://monographs.iarc.fr/ENG/Monographs/vol100C/index.php>

[Review of human carcinogens \(metals, arsenic, dust and fibres\) by WHO's International Agency for Research on Cancer \(external site\)](#)

<http://monographs.iarc.fr/ENG/Monographs/suppl7/Suppl7-20.pdf> [All Accessed 27 June, 2012]