

Asbestos And Health

Questions And Answers

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Asbestos and Health QUESTIONS & ANSWERS

Much has been printed and said about asbestos and health, much of it inaccurate, misleading or completely false.

Some of the more prevalent of these fallacies are discussed in a question and answer format in the following pages.

QUESTION

Is asbestos a major air and water pollutant in our society?

ANSWER

Asbestos exists naturally in small though detectable amounts in serpentine rock formations throughout the world and is constantly being released into the atmosphere through erosion by wind and water. Asbestos is thus natural to our environment, and — as analysis of dated ice from the polar caps have revealed — has been for thousands or even millions of years.

Man therefore probably evolved into his present form in an atmosphere containing a natural background level of asbestos — both in the air he breathed and in the water he drank. While precise comparisons are impossible, today's atmospheric levels of asbestos, even in urban settings, are still only marginally higher than in the distant past and are many thousands of times lower than any levels known to result in disease in occupational settings.

There is no indication that levels of asbestos in community air and water have been increased significantly by modern uses of asbestos. The only exceptions that have been found were in the past in environments close to manufacturing and mining facilities, and in applications where simple controls were not implemented — such as unrestricted spraying of asbestos fireproofing in construction. These emissions are currently under control, in accordance with federal, state and local standards that are designed to help keep asbestos in ambient air everywhere at levels that are not injurious to health.

QUESTION

Do asbestos-containing brake linings used on trucks, busses and automobiles release harmful amounts of asbestos dust into community air?

ANSWER

Brake linings used in transportation vehicles contain up to 55 percent asbestos fiber, but this fiber is locked into the linings with various resins and polymers. When brakes are applied, enormous amounts of heat are generated, which changes the chemical nature of the asbestos in the lining, thus producing a non-fibrous, non-toxic material called fosterite. Studies conducted in the United States and Great Britain have shown that brake lining dust contains only traces (one to three percent) of free asbestos fiber.

In fact, the total amount of free fiber released by brake lining wear throughout the United States in an entire year is less than 20% of the total emissions of particulate matter in a city the size of Los Angeles in a single day!

In addition, tests conducted in New York City at specially selected locations where traffic is heavy and braking frequent have shown that asbestos dust levels are only marginally higher than normal background levels, and many thousands of times lower than levels which could be considered potentially hazardous.

QUESTION

Is asbestos used in the manufacture of clothing worn by the general public?

ANSWER

In 1971, a clothing manufacturer imported cloth from Italy that contained 8 percent asbestos fiber and was used to make 200,000 women's overcoats. An emotional outcry resulted, but Food & Drug Administration tests showed that the amount of asbestos dust which could be generated from such a coat, even under extreme conditions, would not pose a health hazard to the wearer of the coat.

education, boy and girl scout councils, YMCA's and YWCA's, etc. This letter said in part:

"It has come to our attention that on occasion the leaders of youth activity groups have used asbestos fiber as an inexpensive substitute for modeling clay and papier-mache. "We feel strongly that this use of asbestos should be discontinued. Although the levels to which children may be exposed are probably very small and present no hazard to health, we do know that heavy exposure to asbestos in occupational settings can be a cause of illness. "For this reason we feel that it is prudent that the use of asbestos for hobby purposes be eliminated."

As a result of this letter, appropriate steps were taken by many of the groups contacted to discontinue this particular use of asbestos. When the Association learns of instances where this practice has not been discontinued, appropriate letters of warning are sent to the parties involved.

ounce in the total United Kingdom beer production of over a thousand-million gallons a year.

In addition, a consensus report from a 1972 international meeting on asbestos-health sponsored by the World Health Organization found no "evidence of an increased risk of cancer resulting from asbestos fibers present in water, beverages, food or in the fluids used for the administration of drugs."

QUESTION

Is the atmosphere being polluted by asbestos sprays used to fireproof the superstructure of buildings under construction?

ANSWER

The use of asbestos-containing, spray-on fireproofing compounds in high-rise building construction has been banned in the United States by the Federal Environmental Protection Agency (EPA) because the methods developed for the control of emissions of fiber from these sources proved to be ineffective.

Once this fact became established, the asbestos manufacturing industry concurred with the EPA that the use of spray fireproofing compounds should be prohibited.

QUESTION

Are asbestos-containing modeling compounds still being used by school children in art classes in the United States?

ANSWER

From time to time, a newspaper will carry a report that children in a local school or YWCA are using asbestos as a modeling compound to construct puppets or sculpt heads. This normally results in excited denunciations by local politicians and others, who demand that the practice be stopped. Simply speaking, the asbestos industry agrees with them — the practice should be stopped!

In November 1971, the Asbestos Information Association sent a caution letter on this subject to nearly 5,000 teachers associations, hobby and craft publications, state boards of

The FDA, nevertheless, decided to ban the manufacture of such "general use" garments in the future because they felt it constituted an "inappropriate use of asbestos fiber, one in which none of the special properties of the fiber that contribute to the welfare of the public are utilized." The Asbestos Information Association officially concurred in this decision.

Garments in which the special properties of asbestos are utilized, such as fireproof suits, barbecue mitts and aprons, etc., were not banned by the FDA because the asbestos fibers are "locked in" the garments by chemical agents or other means.

QUESTION

Will there be an "epidemic" of asbestos-related mesothelioma in the future among people who worked in United States shipyards during World War II?

ANSWER

Despite the predictions of some doctors to the contrary, it appears highly unlikely that such an "epidemic" will occur. Predictions of this nature have been based primarily on the experience of workmen in British, not United States, shipyards, where a relatively small number of mesothelioma cases have been reported among yard employees not known to have worked directly with loosely-bound asbestos products in their jobs. There are several important factors, however, which do not make the British experience comparable with that in American shipyards. These are:

1. The prime method of applying asbestos-containing insulations aboard British warships was by spraying, a notoriously dusty method of application. Dust counts taken during spraying in British shipyards have been recorded as high as 1500 fibers per cubic centimeter of air (300 times higher than the current United States standard for asbestos exposure). Counts taken during the sweeping and bagging of asbestos debris have reached the astronomical figure of 3815 fibers per cc (more than 750 times the U.S. standard). This resulted in very high dust levels throughout the shipyard area.

2. Spray application methods were never used in United States shipyards during the Second World War. The alternative methods used in this country, while creating dusty conditions for the men doing the actual work, did not result in hazardous conditions throughout the yard, as was the case in Great Britain.

3. The type of asbestos fiber most used in British shipyards for insulation purposes was crocidolite, the variety of fiber most medical experts agree is the most likely to cause mesothelioma. Crocidolite was not used in U.S. shipyard work.

4. The actual number of shipyard mesothelioma cases reported in Great Britain, while of great concern, cannot be considered of "epidemic" proportions. In the Scottish yards, for example, 49 cases have been reported in the 18 year period ending in 1967.

5. Millions of men were employed in United States and British shipyards during the First World War and in the intervening years down to World War II. Asbestos insulations were used extensively during this period. The practices employed for the application of these insulations were similar, if not dustier, than those used in U.S. yards during World War II, yet no "epidemic" of mesothelioma occurred as a result of these exposures. If thousands of cases had developed, this disease would certainly have come to the attention of asbestos-health experts much earlier than it did (early 1960s).

This is not to say that a few cases of mesothelioma will not develop among indirectly exposed United States shipyard workers, however the printed medical and exposure data does not support the prediction that a hundred thousand or more will die as a result of their World War II exposures.

QUESTION

Are cosmetic talcum powders, including baby powders, contaminated by excessive amounts of asbestos fibers?

ANSWER

A form of asbestos called tremolite can be found in nearly all talcum powder, since it is a naturally occurring contaminant in talc stone. In some industrial talcs, not intended for human use, the percentage can be quite high. In cosmetic talcum powders, however, including baby powders, the percentage has been found to be very small. A 1972 study by the Office of Product Technology of the Food and Drug Administration showed that, of 40 cosmetic talcum powder samples tested, 39 contained one percent asbestos or less, while the 40th had to be retested for traces. This is far below the 15 to 25 percent figures quoted in some newspaper reports.

QUESTION

Do asbestos-containing filter materials release asbestos fibers in potentially hazardous quantities into liquors, beers, wines, soft drinks and other liquids offered for sale to the public?

ANSWER

Asbestos-cellulose filter pads have been used in the filtration of liquids since the beginning of this century. These filter pads play an important role in clarifying and improving the taste of certain beverages, as well as removing potentially toxic substances from the finished product. The mass production of many of our more important injectable drugs would be virtually impossible without the use of asbestos-containing filter media.

While it is possible that very tiny amounts of electron microscope sized asbestos fibrils are released into some beverages from the use of asbestos-containing filter pads, there is no evidence whatever that the size and quantity of the fibrils released constitute any hazard to human health.

This same question was raised in Great Britain a few years ago with regard to fibrils of asbestos found in beer. The furor died when it was shown that the total amount of asbestos fiber found in British beer added up to only two-one-thousandths of an