

**Press release****Asbestos-related occupational diseases in Europe:  
a survey in 13 countries**

Most European countries are faced with the problem of asbestos-related occupational diseases. What are the diseases giving entitlement to compensation? According to what criteria are they recognised? How many cases are actually recognised and what are the trends since 1980? How are the victims compensated? To all these questions the recently published Eurogip<sup>1</sup> report on "*Asbestos-related occupational diseases in Europe*" provides answers. This document also reviews estimates of mortality due to mesothelioma in Europe over the coming years. Although dramatic, the consequences will apparently be less catastrophic than predicted by Peto<sup>2</sup> in 1999, since there would be 100,000 deaths from mesothelioma (as opposed to a projected figure of 250,000).

**A magic but fatal ore**

Asbestos was used extensively for its heat and sound insulation and fire retardant properties, and also for its low cost, especially between 1950 and 1970. Over 3000 applications have been identified.

However, as early as 1898, a chief labour inspector in the UK mentioned the potential health risks of asbestos after observing cases of pulmonary fibrosis in textile workers. In the mid-20th century, the carcinogenic properties of asbestos were established scientifically. But it was in the 1970s that most of the European countries took the first large-scale measures to control the use of asbestos. Norway was the first country to ban general use of the ore, in 1984. Finally, at the European Union level, all asbestos fibres will be prohibited on 1st January 2005, in accordance with Directive 1999/77/EC<sup>3</sup>.

**Recognition of the occupational nature of asbestos-related diseases**

The criteria for recognition of the four main diseases caused by asbestos - asbestosis, lung cancer, mesothelioma and pleural plaques - are relatively uniform from one country to another.

These diseases usually appear on the national lists of occupational diseases. Germany was the first country to register asbestosis (in 1937) and asbestos-related lung cancer (in 1942) on its list. This list of occupational diseases facilitates the recognition procedure, because victims do not have to demonstrate the causal link between exposure to asbestos dust and the disease, if the disease and/or the harmful agent are registered on the list.

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<sup>1</sup> Eurogip is a public interest grouping (*Groupement d'intérêt public*) set up by the French National Health Insurance Fund for Employees (CNAMTS) and the National Institute for Research and Safety (INRS) to work on the European aspects of occupational risks

<sup>2</sup> Peto et al.: The European mesothelioma epidemic. *Br J Cancer*. 1999, 79: 666-72

<sup>3</sup> Commission Directive of 26 July 1999 adapting to technical progress (asbestos) for the sixth time Annex I to Council Directive 76/769/EEC on the approximation of the laws, regulations and administrative provisions of the Member States relating to restrictions on the marketing and use of certain dangerous substances and preparations

Note that Denmark takes into account the "tobacco factor" in the recognition of lung cancer caused by asbestos. If the victim has been a heavy smoker, the amount of benefits awarded to the victim is halved. If there is a doubt concerning the asbestos exposure, major tobacco abuse leads to rejection of the claim.

The recognition of other types of cancers of the otorhinolaryngological and digestive systems is possible. But it is far from being unanimously adopted in Europe. Only laryngeal cancer appears on the list of occupational diseases of five countries or is recognised under the complementary system (in France and Italy; in this case the victim must provide proof of the causal link between exposure to the risk and occurrence of the disease).

### **Major differences in the number of cases recognised from one country to another**

Relatively large differences are observed from one country to another regarding the number of cases recognised per 100,000 insureds for the three main asbestos-related diseases in 2000: from 0.15 (Spain) to 5.23 (Germany) for asbestosis; from 0.03 (Switzerland) to 3.3 (France) for asbestos-related lung cancer; from 0.08 (Belgium) to 14.27 (France) for pleural plaques.

These differences can chiefly be explained by:

- the size of the exposed population due to economic activities (e.g. shipbuilding and repair);
- the more or less late date of introduction of the prohibition on the use of asbestos or of the provisions relating to the protection of workers exposed to asbestos;
- the policy of detection of workers exposed to asbestos dust in the past: in Germany, Finland and Norway, for example, which are extremely active in this area, the results of their initiatives are currently reflected in their statistics;
- the prevailing system for recognition of occupational diseases: the late registration of pleural plaques on the Belgian list (1999) and their removal from the Danish list between 1989 and 2004 are to be related to the low ratios recorded in those countries. The high ratio of 3.3 for lung cancers in France could partly be explained by the exposure criterion (the exposure must last at least ten years, but there is no requirement regarding the intensity of exposure), which is rather less restrictive than in most other countries of Europe.

In the case of mesothelioma, on the other hand, the differences are slighter (from 1.16 cases per 100,000 insureds in Finland to 3.6 in Denmark), because the recognition criteria are less divergent and, the latency period being very long, the influence of the date at which prohibition came into force is weaker.

### **Examination of the evolution of the number of cases recognised**

Asbestosis is currently declining in most countries, after peaking in the 1990s. This is the result of the more or less late prohibition of the use of asbestos, together with a latency period (from 10 to 20 years) that is shorter than for other diseases.

As regards mesothelioma and asbestos-related lung cancer, based on the most recent statistics a distinction can be made between two groups of countries:

- In Denmark, Finland, Norway and Switzerland: stabilisation - or even decline - in recent years in the number of recognised cases of mesothelioma, that can be explained by the early prohibition of the use of asbestos;
- In Germany, France, Italy and, to a lesser extent, Belgium: regular - or even exponential - increase in mesothelioma and lung cancers that each explains differently: the reunification of Germany in 1990 and the 1993 introduction of an

additional criterion into the procedure for recognition of the job-related nature of lung cancer; changes in the recognition legislation in favour of the victims in France; late registration, in 1994, of mesothelioma and lung cancer in Italy, and creation in 1992 of an early retirement system which probably led to an increase in claims for recognition and hence in the number of cases recognised in the country.

### **Special insurance systems**

The phenomenon of under-reporting of occupational diseases is prevalent, and asbestos-related diseases do not escape the rule.

Accordingly, Germany, Finland and Austria have adopted a proactive approach to detect new cases. This means chiefly campaigns for information and identification of workers who have been exposed to asbestos and/or affected by cancers.

With regard to compensation, compensation for diseases caused by asbestos is generally paid just as for any other occupational disease.

There are few exceptions:

- Sweden offers improved benefits for pleural plaques.
- France and the Netherlands have established a special compensation regime (it should be remembered that in the Netherlands there is no specific insurance covering occupational injuries and diseases and the compensation regime concerns only the victims of mesothelioma, whether they be workers or relatives living with them).
- Italy in 1992 and France in 1999 created an early retirement system for workers exposed to asbestos.

### **Estimates of mortality due to mesothelioma**

In a study published in 1999, Peto predicted an "epidemic" of mesothelioma between 1995 and 2029, with a peak around the year 2018, causing 250,000 deaths in Western Europe.

Now, research carried out since then on the actual evolution of mortality reveals lower figures. In the Netherlands, Segura et al<sup>4</sup> (2003) have considerably altered their forecasts, giving a 44% lower number of cases of mortality. In Sweden, which was one of the first countries to take preventive measures concerning the use of asbestos, the rate of occurrence of mesothelioma has stabilised.

Moreover, according to recent ecological research based on the statistics compiled by nine countries, the latency period (time elapsing between first exposure and the clinical symptoms of mesothelioma) is estimated at approximately 25 years instead of 32 years as announced in 1992.

It seems, therefore, that the increase in the rate of occurrence of mesothelioma in the coming years, or even decades, will stop sooner than expected, especially in Northern Europe where measures designed to reduce occupational exposure were taken in the 1970s. Accordingly, the total number of deaths from mesothelioma in Europe would finally be about 100,000.

Now, mesothelioma being considered the most sensitive and most specific indicator of the negative effects of asbestos exposure, a similar trend can be expected for other malignant diseases such as asbestos-related lung cancer.

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<sup>4</sup> SEGURA O, BURDORF A, LOOMAN C. Occup Environ Med. 2003, 60: 50-55