



## Asbestos: damage, control and policy

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Asbestos is the generic name for a group of naturally occurring fibrous minerals, metallic silicates. It has been used for a variety of purposes; its characteristics of heat and chemical resistance have made it ideal for fireproofing and insulation. Asbestos was extensively used as a building material in the UK from the 1950s through to the mid-1980s. Any building built before 2000 (houses, factories, offices, schools, hospitals etc) can contain asbestos.

Asbestos is now principally regulated by the *Control of Asbestos Regulations 2006* (SI 2006/2739) (CAR). The CAR brings together three previous sets of Regulations covering the prohibition of asbestos, the control of asbestos at work and asbestos licensing.

The government stated that prevention of exposure to asbestos at work will continue to be a priority for the Health and Safety Executive. Two possible future policy changes include: the establishment of an Employers' Liability Insurance Bureau - a compensation fund of last resort which would ensure that some individuals who are unable to trace employers' liability insurance records would receive compensation; and changes to ensure compliance with the latest EU asbestos at work Directive.

Asbestos fibres are generally present in the environment in Great Britain, so many people are exposed to very low levels of fibres. The risk of developing an asbestos-related disease relates to the total number of fibres that are inhaled and which penetrate deep into the lungs. Working on or near damaged asbestos-containing materials or breathing in high levels of asbestos fibres could increase the chances of someone getting an asbestos-related disease.

When these fibres are inhaled they can cause serious diseases which, according to the HSE, are responsible for around 4000 deaths a year. Information about how to claim compensation for asbestos related diseases are dealt in other Library standard notes:

- [Mesothelioma: civil court claims](#), SN/HA/4450, 22 March 2011
- [Pleural Plaques – The Government's Response](#), SN/HA/5361, 4 August 2010

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## 1 What is asbestos?

Asbestos is the generic name for a group of naturally occurring fibrous minerals, metallic silicates, which are mined from countries such as Canada, South Africa and Russia.<sup>1</sup> It has been used for a variety of purposes; its characteristics of heat and chemical resistance have made it ideal for fireproofing and insulation.

There are several different types of asbestos which are divided into colour groups:

Most common is the serpentine group, which includes chrysotile (white asbestos) and which has been the most frequently mined. A second asbestos group known as the amphiboles includes crocidolite (blue asbestos) and amosite (brown asbestos).<sup>2</sup>

Asbestos was extensively used as a building material in the UK from the 1950s through to the mid-1980s. Any building built before 2000 (houses, factories, offices, schools, hospitals etc) can contain asbestos. According to the Health and Safety Executive (HSE) Asbestos materials in good condition are safe unless asbestos fibres become airborne, which happens when materials are damaged.<sup>3</sup>

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<sup>1</sup> LexisNexis, Tolley's *Health and Safety at Work Handbook 2011*, 23<sup>rd</sup> Edition, A5001

<sup>2</sup> Health and Safety Executive website, [Asbestos related disease statistics: frequently asked questions and answers](#) [on 21 March 2011]

<sup>3</sup> Health and Safety Executive website, [Asbestos basics](#) [on 16 March 2011]

## 2 Asbestos dangers

Asbestos fibres are generally present in the environment in Great Britain, so many people are exposed to very low levels of fibres. The risk of developing an asbestos-related disease relates to the total number of fibres that are inhaled and which penetrate deep into the lungs. Working on or near damaged asbestos-containing materials or breathing in high levels of asbestos fibres could increase the chances of someone getting an asbestos-related disease.

When these fibres are inhaled they can cause serious diseases which, according to the HSE, are responsible for around 4000 deaths a year. There are four main diseases caused by asbestos: mesothelioma; lung cancer; asbestosis; and diffuse pleural thickening.

### 2.1 Mesothelioma

Mesothelioma is a type of cancer which can occur on the pleura, the lining of the lung, or the peritoneum, the lining surrounding the lower digestive tract.

Mesothelioma is not typically detected in the early stages of the disease and so once diagnosed it is often advanced. In the majority of cases mesothelioma is rapidly fatal following diagnosis.<sup>4</sup> Mesothelioma is closely related to asbestos exposure and is responsible for over 90% of cases, although it has been reported in some individuals without any known exposure to asbestos.<sup>5</sup> There is a long delay between initial exposure to asbestos and death from mesothelioma is typically between 30 and 40 years.

According to the cancer charity Macmillan a connection between contact with asbestos and cancer was established in the 1960s.<sup>6</sup> The HSE sets out how the total number of mesothelioma deaths has increased since this time and is expected to increase further:

- The total number of [mesothelioma deaths](#) has increased from 153 in 1968 to 2249 in 2008.
- The most frequently recorded occupations on death certificates of men now dying from mesothelioma include carpenters and joiners; plumbers, heating and ventilating engineers; and electricians and electrical fitters.
- The expected number of deaths amongst males is predicted to increase to a peak of 2038 (90% prediction interval: 1929 to 2156) around the year 2016.<sup>7</sup>

### 2.2 Asbestos related lung cancer

Exposure to asbestos can increase the chances of developing lung cancer, although it is certainly not the only cause. As lung cancer can occur spontaneously, or be related to smoking, the diagnosis of asbestos related lung cancer is normally by taking a history of the patient, including details of their previous occupations.<sup>8</sup> As the HSE sets out, this means that the total number of asbestos related lung cancers has to be derived from statistical estimates based on evidence from epidemiological studies rather than direct counting of individual cases. It estimates that:

It is likely that there are around as many asbestos related lung cancer deaths in Great Britain annually as there are mesothelioma deaths. There were 2249 mesothelioma

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<sup>4</sup> Health and Safety Executive website, [Mesothelioma](#) [on 16 March 2011]

<sup>5</sup> British Lung Foundation website, [Mesothelioma](#) [on 16 March 2011]

<sup>6</sup> Macmillan website, [What is mesothelioma?](#) [on 16 March 2011]

<sup>7</sup> Health and Safety Executive website, [Mesothelioma](#) [on 16 March 2011]

<sup>8</sup> LexisNexis, Tolley's *Health and Safety at Work Handbook 2011*, 23<sup>rd</sup> Edition, A5002

deaths in 2008. There were 335 recorded new cases of disablement in 2009 due to asbestos-related lung cancer and 86 reports of lung cancer in the THOR [The Health and Occupation Reporting] scheme, not all of which were asbestos-related. These numbers are substantially lower than the likely annual total number of deaths inferred from the number of mesotheliomas.

### 2.3 Asbestosis

Asbestosis is a thickening of the wall of the alveoli, the small lung sacs where oxygen passes into the blood.<sup>9</sup> It is a type of scarring of the lung caused by asbestos fibres which have lodged in the lungs after being inhaled from the air. The scarring causes the lungs to shrink resulting in breathlessness. Asbestosis develops in some people who have breathed in a substantial amount of asbestos dust in the course of their work. According to the British Lung Foundation, it usually shows itself a long time after dust inhalation, often twenty or thirty years after exposure.<sup>10</sup>

The signs of the disease can be detected by x-ray. If exposure to asbestos is extensive and prolonged the damage to the lungs can be severe and eventually lead to death. The progress of the disease is proportional to exposure.<sup>11</sup>

The HSE maintains a register of all deaths where death certificates mention asbestosis. In 2008 there were 429 deaths where the death certificate mentioned asbestosis and of these 117 had asbestos recorded as the underlying cause of death. The HSE explains however, that Interpretation of these figures is complicated by two issues:

- Cases of asbestosis may sometimes not be recorded as such because they may be mistaken for other types of lung fibrosis or may go undiagnosed.
- The word "asbestosis" is often mentioned on death certificates along with other asbestos-related diseases - i.e. mesothelioma and/or lung cancer. On some death certificates the wording of the cause of death description suggests that the term has been used incorrectly to indicate the role of asbestos in causing mesothelioma and/or lung cancer, rather than the presence of asbestos-induced lung fibrosis per se. This is particularly the case for mesothelioma, where the phrase "industrial disease of asbestosis" is often used when mesothelioma is given as a cause of death.<sup>12</sup>

### 2.4 Diffuse pleural thickening

The pleura is a two-layered membrane which surrounds the lungs and lines the inside of the rib cage. Some asbestos fibres inhaled into lungs work their way out to the pleura and may cause fibrosis or scarring to develop there. This causes the pleura to thicken and this may show up on a chest X-ray. Pleural thickening occurs in two forms:

- diffuse pleural thickening extends over a large area and may restrict expansion of the lungs, leading to breathlessness;
- pleural plaques are localised areas of pleural thickening which usually do not interfere with breathing.<sup>13</sup>

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<sup>9</sup> LexisNexis, Tolley's *Health and Safety at Work Handbook 2011*, 23<sup>rd</sup> Edition, A5002

<sup>10</sup> British Lung Foundation website, [Asbestos](#) [on 16 March 2011]

<sup>11</sup> LexisNexis, Tolley's *Health and Safety at Work Handbook 2011*, 23<sup>rd</sup> Edition, A5002

<sup>12</sup> Health and Safety Executive website, [Asbestosis](#) [on 16 March 2011]

<sup>13</sup> British Lung Foundation website, [Asbestos](#) [on 16 March 2011]

According to the HSE, there were 400 new cases of disablement in the year 2008 due to this disease, although this figure is likely to be a substantial underestimate. The annual number increased during the 1990s but has remained fairly stable over recent years.<sup>14</sup>

### 3 Control of asbestos

#### 3.1 History

Employers' failure to protect their workers adequately before 1969 – the Date of Knowledge for asbestos related disease - has led to a significant rise in the number of people suffering from asbestos-related illnesses.

The first death from work related exposure to asbestos was reported to Parliament by Dr. Montague Murray.<sup>15</sup> The association between occupational exposure to asbestos and fibrosis of the lungs was made during the early decades of the twentieth century. Recognition of the need for environmental control is generally dated from the publication of the results of the survey by Merewether and Price in 1930.<sup>16</sup> This led to the introduction of the *Asbestos Industry Regulations* SI 1931/1140.

The risks were initially thought to be limited to the textile industry; the 1931 regulations were limited and applied only to asbestos factories handling and processing raw fibre. Subsequent research indicated the risks may be more widespread; some workers, notably those associated with the thermal insulation industry, where the most hazardous type of asbestos, crocidolite, was handled did not fall under its control. The position was remedied by the *Asbestos Regulations* SI 1969/690, which applied to a wider range of factories. It was not until the enactment of the *Health and Safety at Work etc Act 1974* (HSWA) and associated regulations that employees in all workplaces were protected.

Some commentators believe that evidence available prior to 1930 should have led to earlier effective control.<sup>17</sup> Commentators state that: "the responsibility for this delay must be shared between manufacturers, workers' representatives, the Factory Inspectorate and Scientists involved in the relevant research."<sup>18</sup>

Importation, supply and use of brown and blue asbestos have been banned in the UK since 1985. Regulations banning the use of white asbestos came into effect on 24 November 1999. These implement a European Directive relating to restrictions on the marketing and use of certain dangerous substances and preparations (asbestos).<sup>19</sup>

#### 3.2 Current control

Asbestos is now principally regulated by the *Control of Asbestos Regulations 2006* (SI 2006/2739) (CAR) which came into force on 13 November 2006. The CAR brings together three previous sets of Regulations covering the prohibition of asbestos, the control of asbestos at work and asbestos licensing.

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<sup>14</sup> Health and Safety Executive website, *Diffuse pleural thickening* [on 16 March 2011]

<sup>15</sup> Parliamentary Departmental Committee on Compensation for Industrial Diseases 1906

<sup>16</sup> Merewether ERA, Price CW. Report on effects of asbestos dust on the lungs and dust suppression in the asbestos industry. London: HMSO, 1930

<sup>17</sup> Knowledge of Asbestos Hazards by Companies in the Asbestos Industry  
<http://www.hfmlegal.com/Knowledge.htm>

<sup>18</sup> Soc Hist Med. 1994 Dec;7(3):493-516

<sup>19</sup> OJL 207, 6 August.1999, Directive 1999/77/EC

CAR prohibits the importation, supply and use of all forms of asbestos. It continues the ban introduced for blue and brown asbestos in 1985 and for white asbestos in 1999. It also continues to ban the second-hand use of asbestos products such as asbestos cement sheets and asbestos boards and tiles; including panels which have been covered with paint or textured plaster containing asbestos.<sup>20</sup>

The CAR requires non-domestic building owners and occupiers to identify where asbestos is present in every building and have a documented plan to control the risks to health presented by that asbestos. It also requires employers and the self-employed to prevent exposure to asbestos fibres. Where this is not reasonably practicable, they must make sure that exposure is kept as low as reasonably practicable by measures other than the use of respiratory protective equipment.<sup>21</sup>

Further information about these regulations and duties under them is available from the Health and Safety Executive website, [Control of Asbestos Regulations 2006](#).

#### 4 Claims for asbestos related diseases

One or more routes are open to asbestos related disease sufferers and/or their dependants:

- A civil claim for damages against one or more of the employers responsible for exposing them to asbestos negligently and/or in breach of a statutory duty
- The Industrial Injuries Disablement Benefit scheme administered by the Department for Work and Pensions (DWP)
- For those unable to pursue a civil claim against an employer, a lump sum payment under the scheme set up by the *Pneumoconiosis etc (Workers' Compensation) Act 1979* (PWCA), which is also administered by the DWP.

For more information about civil court claims for asbestos related diseases, see Library standard note [Mesothelioma: civil court claims](#), SN/HA/4450

For information about civil claims relating to pleural plaques see, [Pleural Plaques – The Government's Response](#), SN/HA/5361, 4 August 2010

#### 5 Government policy

In response to a PQ in March 2011 the government stated that prevention of exposure to asbestos at work will continue to be a priority for the HSE:

**Bridget Phillipson:** To ask the Secretary of State for Work and Pensions what plans his Department has for prevention of mesothelioma cases caused by exposure to asbestos. [41891]

**Chris Grayling:** The prevention of exposure to asbestos at work is and will continue to be a priority for HSE. The majority of work with asbestos can only be carried out by contractors licensed by HSE.

In addition, when visiting employers as part of any relevant intervention, HSE visiting staff actively explore compliance with the Control of Asbestos Regulations 2006, with

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<sup>20</sup> Health and Safety Executive website, [Control of Asbestos Regulations 2006](#) [on 16 March 2011]

<sup>21</sup> Health and Safety Executive website, [Control of Asbestos Regulations 2006](#) [on 16 March 2011]

non-domestic building owners and occupiers who have a duty to manage any asbestos in their premises.

HSE also works closely with stakeholders and partners to raise awareness of the dangers of asbestos and encourage trades people to access training.<sup>22</sup>

## 5.1 Future changes

### ***Tracing employers' liability insurance policies***

In February 2010 the previous Government published a consultation document, [Accessing Compensation: Supporting people who need to trace employers' liability insurance](#), which set out proposals for people who need to find their employers' liability insurance policies in order to claim compensation.

The consultation was launched in recognition that a number of individuals have difficulties in tracing the employer's liability policy and/or the employer, where the employer is no longer in business. This has been a problem particularly for individuals with an occupational disease where they were exposed to the agent that caused the disease some time ago, such as asbestos-related diseases. The consultation set out that of some 800 mesothelioma claimants trying to access employer's liability insurance details via the Employers' Liability Code of Practice (ELCOP),<sup>23</sup> 390 claimants (48%) had been unable to trace an insurer.<sup>24</sup>

The consultation proposed that to ensure that more people with mesothelioma are able to get compensation, an Employers' Liability Insurance Bureau (ELIB) could be set up just for them. An ELIB would be a compensation fund of last resort and would ensure that some individuals who are unable to trace EL insurance records would receive compensation.<sup>25</sup>

The consultation also proposed an Employers' Liability Tracing Office (ELTO). An ELTO would manage an electronic database of employer's liability policies and also operate the existing tracing service.<sup>26</sup>

The Coalition Government responded to a PQ in February 2011 about whether the proposed ELIB and ELTO would now be established. The Government said that it was working with stakeholders on the proposals and that there would be an announcement in due course:

#### **Employers' Liability Insurance Bureau**

**Natascha Engel:** To ask the Secretary of State for Work and Pensions if he will bring forward proposals to establish an employers' liability insurance bureau; and if he will make a statement. [39813]

**Chris Grayling:** In February 2010 the previous Government published their consultation document, "Accessing Compensation-Supporting people who need to trace employers' liability insurance", which set out proposals for people who need to find their employers' liability insurance policies in order to claim compensation. The

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<sup>22</sup> HC Deb 1 March 2011 [c359W](#)

<sup>23</sup> The Employers' Liability Code of Practice (ELCOP) is a voluntary code of practice for tracing employer's liability Insurance Policies backed by the Association of British Insurers (ABI) and the Lloyds Market Association

<sup>24</sup> Department for Work and Pensions, [Supporting people who need to trace Employers' Liability Insurance – public consultation](#), February 2010, p17

<sup>25</sup> Department for Work and Pensions, [Supporting people who need to trace Employers' Liability Insurance – public consultation](#), February 2010, p5 and 17

<sup>26</sup> Department for Work and Pensions, [Supporting people who need to trace Employers' Liability Insurance – public consultation](#), February 2010, p5

consultation closed on 5 May 2010. There were two proposals; firstly an Employers' Liability Tracing Office, that would manage a database of employers' liability policies. Secondly, an Employers' Liability Insurance Bureau which would be a compensation fund of last resort for those individuals who are unable to trace employers' liability insurance records, ensuring they are able to receive compensation for injuries or diseases sustained during the course of their employment. We are in active discussions with all stakeholders on how this situation can be addressed and we will bring forward our proposals in due course.<sup>27</sup>

### ***Compliance with the protection of workers from the risks related to exposure of asbestos at work Directive***

In February 2011 it was reported that the European Commission had requested that the UK amend its regulations on asbestos at work because they do not comply fully with [EU Directive 2009/148/EC](#) of the European Parliament and of the Council of 30 November 2009 on the protection of workers from the risks related to exposure to asbestos at work. This Directive repeals and replaces 1983 asbestos at work Directive 83/477/EEC which is implemented in the UK by the *Control of Asbestos Regulations 2006* (SI 2006/2739)

The 2009 Directive aims to protect workers against risks to their health which are likely to arise from exposure to asbestos at work. It lays down the limit values for this exposure, as well as other specific requirements. Article 3(3)(a) provides for a possible exemption from the Directive for short, non-continuous maintenance activities where exposure to asbestos is sporadic and of low intensity. The *Safety and Health Practitioner Magazine* reported that the European Commission had, in the form of a reasoned opinion under EU infringement procedures, found that this part of the Directive had not been correctly transposed into UK law. As a result, it found that the law in the UK had widened the scope of the exemption, by neglecting to focus on the requirement to look at the material involved as well as exposure levels. The UK now has two months to correct its legislation before a referral may be made to the European Court of Justice. The article reported reaction to ruling, including from the HSE:

Commenting on the development, TUC general secretary, Brendan Barber, said: "This is another nail in the coffin of the myth that the HSE has been 'gold-plating' regulation. European regulations are there to protect workers, and governments should see them as being minimum standards rather than trying to weasel out of their commitments."

Alan Ritchie, general secretary of construction-workers' union UCATT, added: "Construction workers, especially those involved in maintenance work, are now at the greatest risk of being exposed to asbestos and developing asbestos-related diseases.

"It is essential that they are given the greatest possible training, education and protection when it comes to dealing with asbestos. UCATT's advice is clear: if you are not a specialist, do not work with asbestos. If, at any point, you think you are working with asbestos, stop work immediately and get it checked out."

A spokesperson for the HSE told SHP: "The reasoned opinion is a long and complex legal document and we need to look at it carefully before we decide how to respond."<sup>28</sup>

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<sup>27</sup> HC Deb 14 Feb 2011 [c621W](#)

<sup>28</sup> "EU orders UK to tighten asbestos laws" [Safety and Health Practitioner Magazine](#), 21 February 2011