Pneumoconiosis in Great Britain 2013

Pneumoconiosis due to causes other than asbestos in Great Britain

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Summary


Currently occurring cases and deaths from non-asbestos-related pneumoconiosis are mainly a result of past exposures to coal dust (coal worker’s pneumoconiosis) and silica (silicosis).

- There were 265 new cases of coal worker’s pneumoconiosis assessed for Industrial Injuries and Disablement Benefit in 2012 compared to 275 in 2011.
- There were 40 new cases of silicosis assessed for Industrial Injuries and Disablement Benefit in 2011 compared to 50 in 2010.
- These figures are likely to be underestimates of the annual number of new cases.
- The number of annual deaths from coal worker’s pneumoconiosis is now less than half that in the late 1990s, with 136 in 2011.
- There were 16 deaths due to silicosis in 2011 which is close to the annual average for the last 10 years.
- Pneumoconiosis usually takes many years to develop so most current cases of pneumoconiosis occur in retired workers and reflect industrial conditions of the past, particular in the coal mining industry.

**Figure 1: Pneumoconiosis (other than asbestosis) in Great Britain, 1999-2012**
Introduction

The term "pneumoconiosis" refers to a group of lung diseases caused by the inhalation, and retention in the lungs, of dusts. The disease is characterised by scarring and inflammation of the lung tissue. It is an irreversible condition with no cure. Symptoms include, shortness of breath, persistent cough, fatigue, laboured and rapid breathing, chest pain. These can seriously affect normal daily activity and lead to various complications which can be fatal.

The main types of pneumoconiosis are coal workers' pneumoconiosis (caused by coal dust), asbestosis (caused by asbestos) and silicosis (caused by respirable crystalline silica (RCS)). These pages describe the latest available statistics for pneumoconiosis other than asbestosis which is described separately along with other asbestos related diseases – see www.hse.gov.uk/statistics/causedis/asbestosis/.

There is usually a long delay of more than 10 years between first exposure to dust and the onset of symptoms of these diseases, though the disease process itself may start sooner that this, and if dust exposures are high symptoms may also emerge more quickly. However, most new cases or deaths from pneumoconiosis reflect the working conditions of the past and many cases occur in individuals who have retired.

Two main data sources provide information about annual numbers of newly diagnosed cases of pneumoconiosis (disease incidence) in Great Britain: the Department for Work and Pensions (DWP) Industrial Injuries and Disablement Benefit (IIDB) scheme and SWORD scheme within The Health and Occupation Reporting (THOR) network. The IIDB figures may underestimate incidence of pneumoconiosis since some individuals may not be aware of their entitlement to claim compensation or may not wish to do so. The figures are also subject to large fluctuations from time to time in response to changes to the administration of the compensation system or activity by DWP to encourage uptake. Incidence may be more substantially underestimated by THOR since the scheme will only include those cases that are serious enough to be seen by a chest consultant, or that occur in individuals with access to occupational physicians.

Overall Scale

New cases assessed for IIDB and cases recorded by respiratory physicians

IIDB pneumoconiosis cases can be readily classified into 3 groups:

1) coal worker's pneumoconiosis,
2) asbestosis, and
3) other pneumoconiosis (mainly silicosis)

Causal agents other than coal or asbestos are not recorded, but details of the industrial setting in which cases occurred suggest that the majority of the cases in the third group (other pneumoconiosis) are in fact silicosis. For the SWORD statistics, the category "pneumoconiosis" includes all kinds of pneumoconiosis – including asbestosis.

In 2012, there were 265 assessed cases of coal workers' pneumoconiosis for IIDB compared with 275 in 2011; for the last 6 years the numbers have been well below the peak over 1000 cases per year seen during 2002-2004. (See Table IIDB01 www.hse.gov.uk/statistics/tables/iidb01.xls).

There were 40 assessed cases of other pneumoconiosis (mainly silicosis) compared with 50 in 2010, slightly fewer than numbers in the previous five years (see Table IIDB01 www.hse.gov.uk/statistics/tables/iidb01.xls and Figure 1).

Over the last 10 years the annual average estimated number of new cases of pneumoconiosis (including asbestosis) within the SWORD scheme was around 170 per year (Table THORR01 www.hse.gov.uk/statistics/tables/thorr01.xls and Figure 1).

Both the IIDB and THOR schemes indicate that most cases of pneumoconiosis occur in men over retirement age (see table IIDB07 www.hse.gov.uk/statistics/tables/iidb07.xls and THORR02 www.hse.gov.uk/statistics/tables/thorr02.xls). For example, nearly 80% of non-asbestos pneumoconiosis IIDB cases assessed in 2012 were over 65 years of age.

Both the IIDB and THOR data sources are likely to substantially underestimate the incidence of silicosis. Silicosis may be necessary to cause silica-related lung cancer and the current burden of lung cancer in GB due to past exposures to silica has recently been estimated to be nearly 800 deaths per year\textsuperscript{1}. This figure...
suggests that the extent of the underestimation of silicosis could be very considerable. Available silicosis risk estimates for different exposure levels and durations, together with estimates of the likely extent of past exposures in Britain also imply a much higher figure than recorded in the available statistics.

The role of silica exposure in work-related respiratory disease is supported by information about how individuals currently with "breathing or lung problems" thought that work had caused or made their illness worse, according to the LFS.

The most recent estimate of the average annual prevalence of work-related respiratory disease based on the LFS in 2009/10, 2010/11 and 2011/12 suggests that around 129 000 people who had ever worked currently had breathing or lung problems caused or made worse by work (95% Confidence Interval: 117 000 – 142 000). Approximately 19% of these thought that “Dusts from stone, cement, brick or concrete” had contributed to their ill health.

**Trends in Incidence**

Trends in the number of new IIDB pneumoconiosis cases are difficult to interpret. The substantially higher numbers of cases from 2002 shown in Figure 1 is likely to be due to a publicity campaign by the Department for Work and Pensions inviting people whose claims had been wrongly disallowed between 1994 and 1999 to re-claim, and also a more accurate method of data collection introduced in April 2002. Year on year changes in the estimated annual cases based on the THOR scheme are also difficult to interpret because the figures are affected by changes in the numbers and reporting habits of participating physicians.

Table DC01 (www.hse.gov.uk/statistics/tables/dc01.xls) and Figure 1 show deaths due to silicosis and other work-related pneumoconiosis (excluding asbestosis). The number of pneumoconiosis deaths is largely determined by changes in the size and employment conditions of the mining industry many years ago. A downward trend in the number of pneumoconiosis deaths other than silicosis or asbestosis is evident over the last few years (with 136 such deaths recorded in 2011 compared to an average of 166 over the last decade). In 2011 there were 16 deaths in GB with silicosis recorded as the underlying cause, this is very close to the average of 14 deaths per year over the last 10 years.
References


National Statistics

National Statistics are produced to high professional standards set out in the National Statistics Code of Practice. They undergo regular quality assurance reviews to ensure that they meet customer needs. They are produced free from any political interference.

An account of how the figures are used for statistical purposes can be found at www.hse.gov.uk/statistics/sources.htm.

For information regarding the quality guidelines used for statistics within HSE see www.hse.gov.uk/statistics/about/quality-guidelines.htm

A revisions policy and log can be seen at www.hse.gov.uk/statistics/about/revisions/

Additional data tables can be found at www.hse.gov.uk/statistics/tables/.

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