



**CS**LNATIONWIDE

**COMPANY  
HEALTH  
SURVEILLANCE  
GUIDANCE -  
RESPIRATORY**

## **RESPIRATORY DISEASE**

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The respiratory diseases of construction workers may include pneumoconiosis arising from silica (silicosis) or asbestos exposure, asthma and other allergic reactions (e.g. due to isocyanate paint or resin exposure) and chronic obstructive pulmonary disease. Some hazards encountered in construction can cause lung cancer. Smoking can contribute to the respiratory damage and the risk of these diseases.

### **OCCUPATIONAL ASTHMA**

Occupational Asthma (OA) is an important occupational health problem with serious implications for both affected individuals and their employers. For the affected individual, continued exposure to the causative agent usually leads to deteriorating asthma and the risk of severe (or, on rare occasions fatal) asthma attacks. Even if exposure ceases, the more severely affected individuals may still be left with persistent asthma and chronic disability.

### **KEY HEALTH SURVEILLANCE REQUIREMENTS IN THE CONSTRUCTION INDUSTRY**

Recommendations for health Surveillance for employees exposed to respiratory sensitisers  
An occupational health professional should support you with health surveillance for employees exposed to respiratory sensitisers.

A high level of health surveillance will be required when workers are exposed to substances and processes where occupational asthma is a known problem; where they are working with products labeled “R42 May cause sensitisation by inhalation” or products labeled R42/43 “May cause sensitisation inhalation and skin contact”; or where work conditions have caused a confirmed case of asthma.

This level of surveillance would involve:

- Assessing workers’ respiratory health before they start a relevant job to provide a baseline (perhaps using a questionnaire and lung function assessment). A pre-existing history of asthma should not lead to exclusion from work with respiratory sensitisers. However a history of pre-existing asthma due to a substance that will be used in employment should lead to advice to the employee and employer meaning that exposure should be avoided;
- Regular testing yearly, or as advised by the health professional. This could involve further questionnaires and lung function assessments;
- The appointment and training of a “responsible person” to assist with identifying for review any workers who develop symptoms between regular assessments;
- Keeping a health record.

In consultation with a health professional it may be possible to move from a high level of surveillance to a low level after a suitable period of assessment.

Lower level health surveillance is required where:

- There is only occasional or potential exposure to a respiratory sensitiser; or control of a situation where high level surveillance would otherwise be necessary (see above) is known to be adequate.
- Low level surveillance may require no more than:
  - An annual questionnaire, done by a trained responsible person
  - Keeping a health record.

It is recommended that any employees identified to have positive findings on a respiratory questionnaire or abnormalities on spirometry should be referred for a medical opinion.

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### **RESPIRABLE CRYSTALLINE SILICA (RCS) EXPOSURE**

Occupational exposure to RCS in construction work occurs in concrete removal, demolition work, tunnel construction, concrete or granite cutting, drilling, sanding and grinding. Other people in the vicinity of such work may also be exposed. If workers are employed in occupations listed in 'Health surveillance for those exposed to respirable crystalline silica (RCS)' (G404, HSE 2006) you should consider health surveillance.

If the risk is low, you may decide (with advice from a health professional) that health surveillance is unnecessary, but where there is a reasonable likelihood of silicosis developing then health surveillance will be appropriate.

The decision must be made by the duty-holder, in the light of competent advice, taking account of current (and past) exposure circumstances. Health surveillance could require chest x-rays (at intervals, in addition to symptoms enquiries) and a baseline assessment would be appropriate.

However, the benefits of such health surveillance need to be weighed against the risks associated with serial chest x-rays. It is good practice to monitor workers exposed to respirable crystalline silica for signs of COPD, which could include questionnaire and lung function testing.

### **KEY HEALTH SURVEILLANCE REQUIREMENTS IN THE CONSTRUCTION INDUSTRY**

Recommendations for health surveillance and monitoring for employees exposed to respirable crystalline silica (RCS) following appropriate risk assessment:

Decisions regarding Health Surveillance should be made on the basis an assessment of risks of silicosis, taking account of medical advice. Where health surveillance is required this will involve a Pre-placement assessment to establish a baseline of respiratory health, which will include use of a questionnaire, and a chest X ray.

The results should be reviewed by a occupational health physician, who should advise on the frequency of further health surveillance (using chest x-rays), and monitor the results. The results of health surveillance may lead to a need to review the control measures in place.

HSE also recommends (as good practice) that workers with significant exposure to dust containing RCS are annually monitored by spirometry for COPD.

(Note the distinction between health surveillance, which circumstances may indicate is required under COSHH (2002), and health monitoring, which will not be a requirement but nevertheless will represent good practice.)

### **CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD)**

COPD is a common chronic progressive lung disease which is mainly caused by smoking. It is a lung condition that encompasses chronic bronchitis (regular phlegm production) and emphysema (damage to the air sacs in the lung)

Although smoking is the main cause of COPD, exposure at work to dusts, gases, fumes and vapours contribute to about 15 deaths in every 100 from this condition – meaning that there about 4000 more deaths each year than there would otherwise be.

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COPD by definition results in slowly progressive irreversible decline in lung function. The main emphasis should be on primary prevention, which is best achieved by smoking cessation, and the elimination or reduction of exposures to causative substances in the workplace. The evidence for a link between exposure to silica and COPD is such that annual spirometry is recommended to monitor workers for early signs of this disease. This recommendation should be distinguished from the need for health surveillance involving chest x-rays where the risk indicates this is required under COSHH (2002).

### **KEY HEALTH SURVEILLANCE REQUIREMENTS IN THE CONSTRUCTION INDUSTRY**

Recommendations for health monitoring (as opposed to health surveillance) for COPD in construction workers:

The evidence that RCS exposure or other exposures encountered in construction can cause COPD is not strong enough for health surveillance by symptom enquiry and spirometry to be a requirement under COSHH, but for RCS exposure the evidence is sufficiently strong for it to be good practice to monitor workers with significant exposure for early signs of COPD in this way. Health monitoring would best be done at Pre-placement assessment and at yearly intervals thereafter.

It is recommended that employers should have a workplace smoking cessation policy. It is recommended that respiratory health is assessed annually (using Questionnaire, & Spirometry) and is usually reviewed by a doctor.

### **ASBESTOS**

Where workers are exposed to airborne levels of asbestos above the action levels specified in the Control of Asbestos at Work regulations (2006) then the provisions laid down will apply and a doctor must be appointed for the purposes of the regulations. The requirements for Health surveillance are specified in the regulations.