

Occupational hygiene explained

A guide for union health and safety representatives



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What's the problem with worker health in Britain?

In many industries there is, rightly, a strong focus on managing safety risks. However, health risks have not received the same amount of attention. There are many reasons for this, including the fact that the consequences of exposure to work related health hazards are often not visible, and symptoms may be delayed for months, years, and even decades.

According to the Health and Safety Executive (HSE), every year in the UK, approximately 13,000 people die from occupational diseases as a result of past exposures to hazardous substances. These diseases include cancer and lung-related illnesses such as chronic obstructive pulmonary disease (COPD), an umbrella term which includes conditions like chronic bronchitis and emphysema.

Around 33,000 people who worked in the last year, and 141,000 former workers currently have breathing or lung problems they thought were caused or made worse by work, based on figures from the national Labour Force Survey (LFS).

How can we take action to protect the health of workers?

Work-related health risks can either be eliminated, or, where this is not possible, managed and controlled so that the health of workers is protected and the likelihood of occupational illness or disease is minimised.

This guide focuses on how occupational hygienists can help the employer protect workers' health by:

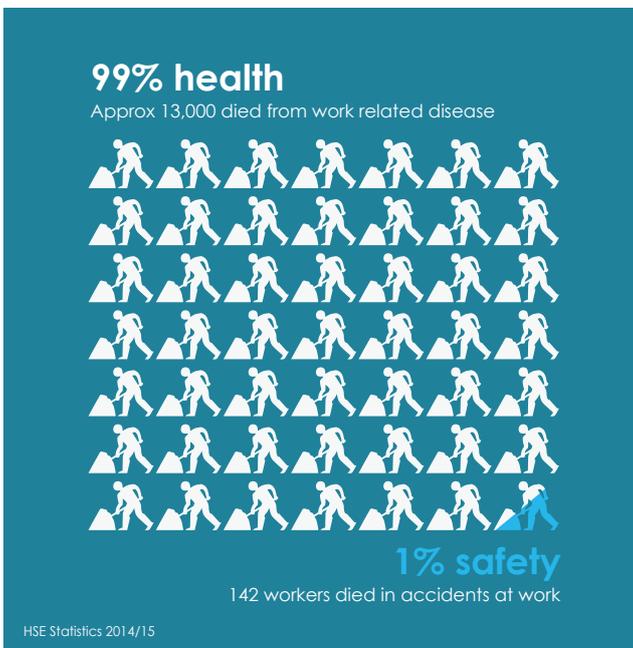
- identifying health hazards
- evaluating the risks to health
- advising on the control measures to reduce health risks.



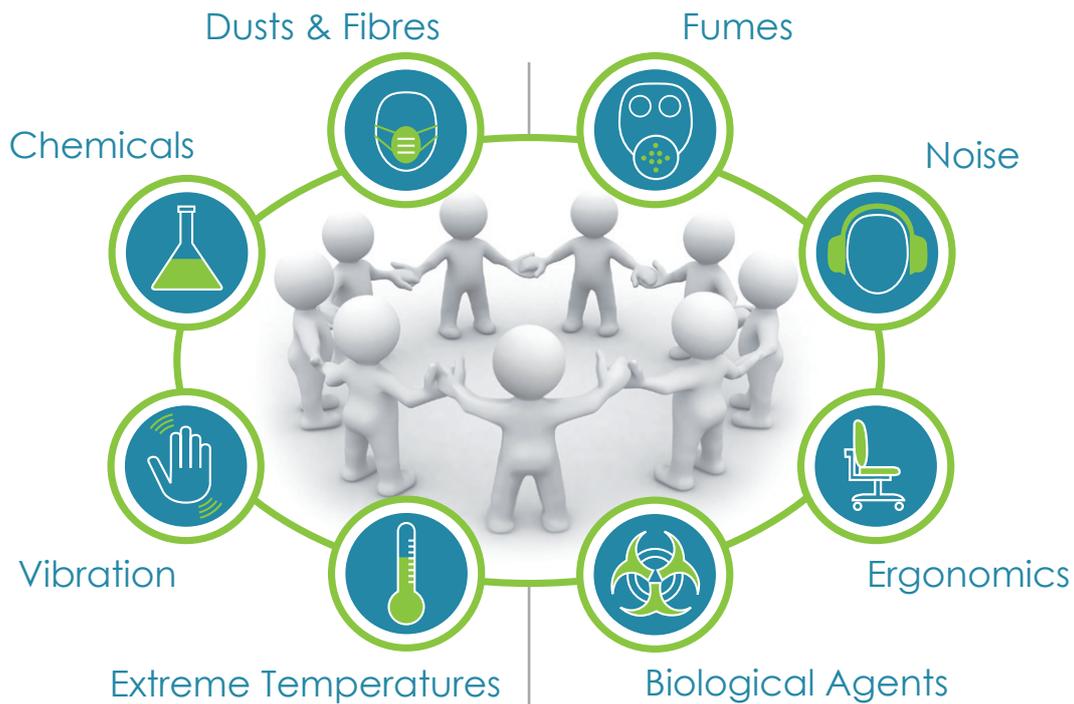
Legionella



Asbestos



"Every year in the UK 99% of work related deaths are caused by occupational diseases, not by accidents!"



What is occupational hygiene?

Occupational hygiene is the science-based discipline of identifying, assessing and controlling exposure to harmful substances in the workplace, such as asbestos and cement dusts, welding fumes and gases, and spray-painting mists, with the objective of proactively protecting worker health.

Occupational hygienists are involved at the interface of people and their workplaces. They help employers to understand how health hazards affect the health of workers, how significant the risks may be and advise on controlling the risks by designing out the hazards. In some cases, occupational hygienists will:

- apply engineering controls to reduce exposure to the minimum
- use administrative measures to minimise risk, such as developing a procedure on how to operate machinery safely or signs to warn people of a hazard.
- select appropriate personal protective equipment (PPE).

In other cases, a combination of the above strategies may be used.



What is occupational health?

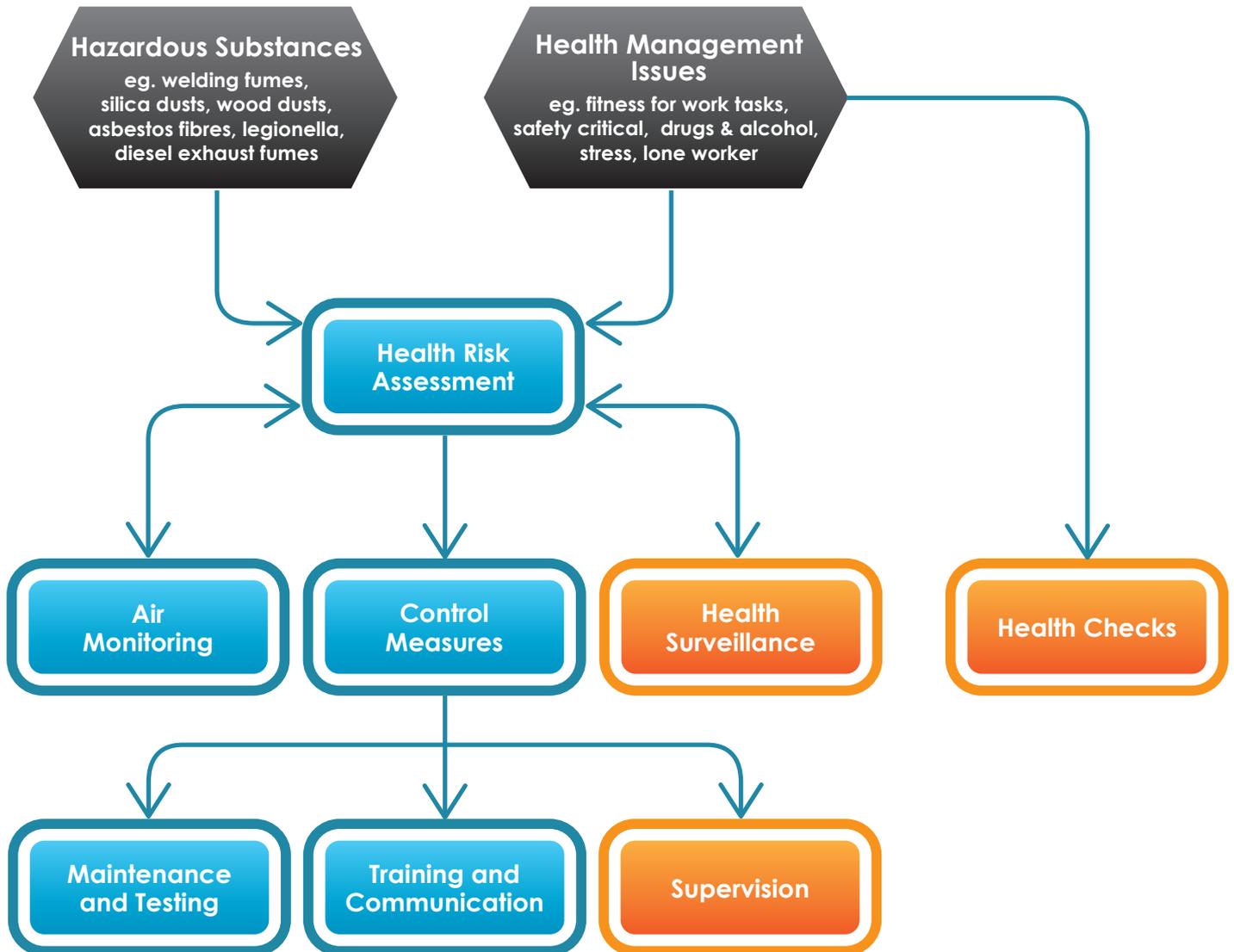
Occupational health is the term used for managing the effect of work on the health of individual employees, and the effect an employee's health may have on their ability to conduct his or her work. It is a two-way process. Occupational health service providers offer a range of services delivered by professional occupational health personnel, including contributing to risk assessment, fitness for work assessments, health surveillance and rehabilitation.

"Occupational health", and "Occupational hygiene" are distinct but overlapping disciplines that complement each other and work together in a multidisciplinary approach, as depicted in the following diagram.



What can an occupational hygienist help with?

Managing health risks in the workplace may require input from different health professionals. The purpose of the diagram below is to show where an occupational hygienist may be able to help.



*This is not intended to suggest that a qualified occupational hygienist is always necessary for all of these tasks, all of the time.

How should health risks be managed?

Health risks should be managed as part of the overall health and safety management system and will typically include requirements for:

- work-related health risk assessments, including risks relating to chemicals under the Control of Substances Hazardous to Health (COSHH) regime, noise, manual handling, legionella, asbestos and hand-arm vibration
- control measures identified using the hierarchy of control and implementation
- procedures to ensure control measures are used, maintained, examined and tested
- workplace exposure monitoring and health surveillance, if required
- information and training
- specific record keeping, such as maintenance of control measures, work place exposure monitoring and training.

All tasks, including routine, non-routine, maintenance and emergency work, should be assessed using suitable assessment tools. Where needed, workplace occupational hygiene monitoring should be used to confirm exposure risks. If personal exposure risks are elevated, then exposure should be controlled using a hierarchy of systematic controls in order of preference listed below. This is known as the hierarchy of control and involves:

- elimination
- substitution
- technical or engineering controls
- administrative or management controls
- personal protective equipment (PPE).

What should employers do?

Employers have a duty under health and safety law to assess risks in the workplace and then to protect people by putting in place (and maintaining) measures to control those risks, so far as reasonably practicable.

Employers should consult workers or their representatives about all matters relating to their worker health protection, including managing health risks and also about the appointment of competent health and safety advisers, including specialists such as occupational hygienists* and occupational health providers.

Employers should ensure that their employees have sufficient information, instruction and training to be able to recognise and understand the health hazards in their working environment and the control measures required to protect themselves, as well as how to raise concerns about occupational health issues.

*The BOHS directory of occupational hygiene services is a list of qualified professional occupational hygiene consultants:
www.bohs.org/OHServices-directory/

What should safety representatives expect from an occupational hygienist?

Occupational hygienists can:

- provide advice on workplace health risk assessments
- carry out personal exposure monitoring and analysis
- advise on control measures such as local exhaust ventilation
- provide training
- conduct audits
- support the communication of health risks and control measures.

It is essential that trade union safety representatives are able to develop a working relationship with the employer and specialists such as the occupational hygienist. Safety reps should exercise their legal rights to represent their members to ensure that:

- ✓ risk assessments include work related health hazards, and that the employer has appropriate equipment and proper procedures in place to control them and the risk assessments are up to date and reviewed regularly
- ✓ occupational hygiene workplace exposure monitoring is conducted for activities, if needed
- ✓ workplace monitoring results are communicated
- ✓ members are aware of the possible health risks and control measures
- ✓ the health of their members can be medically assessed if there are any concerns
- ✓ the hierarchy of control is followed and PPE is considered as a last resort option
- ✓ members are involved in the selection of PPE, such as respirators and masks, that it is suitable for workers and there is a reasonable choice
- ✓ any PPE is properly examined, maintained, tested, cleaned and stored.



What rights do safety reps have?

Safety reps play a key role in protecting the health of trade union members at work. Safety reps have specific rights enshrined in law, which enable them to:

- inspect the workplace regularly for health hazards and risks
- investigate employee complaints concerning health issues at work
- investigate work related health incidents
- represent workers on health and welfare matters to their employer
- inspect health related documents (with the exception of confidential medical records)
- receive information from HSE Regulatory Inspectors
- establish a joint union-management Safety Committee which includes health matters
- receive time off to fulfil these rights and receive training, if needed, in worker health protection.

Employers are required to consult safety reps, especially about:

- measures introduced at a workplace that may substantially affect worker health protection
- arrangements for appointing health and safety competent persons, such as occupational hygienists
- health information to be provided to employees
- health related training arrangements for the workforce, such as induction training
- new technology aimed at protecting worker health.



Further information

The following health and safety resources may be useful:

- BOHS Breathe Freely campaign: www.breathefreely.org.uk
- Health and safety resources from the Trades Union Congress (TUC): www.tuc.org.uk/workplace-issues/health-and-safety/guides-and-reports-reps
- British Occupational Hygiene Society: www.bohs.org
- British Occupational Hygiene Society Consultants Listing: www.bohs.org/OHServices-directory/
- HSE information on COSHH: www.hse.gov.uk/coshh/
- HSE information on Local Exhaust Ventilation: www.hse.gov.uk/lev/
- HSE information on respiratory diseases: www.hse.gov.uk/aboutus/occupational-disease/respiratory-disease.htm
- HSE information on construction dust: www.hse.gov.uk/construction/faq-dust.htm