Identifying and managing cancer-causing agents in your workplace

Syllabus

iosh

This syllabus is for anyone who wants to develop and deliver their own IOSH-approved *Identifying and managing cancer-causing agents in your workplace* course. It will guide you on the type of information you'll need to cover when developing your course. If you need any help, please feel free to contact us.

tailored.courses@iosh.co.uk
+44 (0)116 257 3194

Course materials

When we're reviewing your course materials, we'll look at three key areas: health and safety content, level of interactivity and quality of presentation.

Health and safety content

We'll start by checking that your course content accurately reflects the course aims and objectives as set out in this syllabus. We'll also look at your end-of-course assessments to check that your course gives enough detail for delegates to complete them.

Overall, we'll be checking that the health and safety information in your course is aimed at the right level.

Level of interactivity

We know that people learn best when they experience a variety of learning methods and feel involved with the training. By including interactive elements in your course, you can present an energised training programme that your delegates will enjoy and remember.

When we review your course material, we'll look for interactive or engaging elements, including games, quizzes, films or breakout sessions.

For ideas on how to include interactivity in your course, take a look at our Training Guidance Book. We've included engagement ideas and suggested a few appropriate films on pages 07–09.

Quality of presentation

Your course presentation represents you, your organisation and IOSH to your delegates, so it's important that you make sure it's of a high standard.

When we approve your course, we'll look at all your presentation slides and the delegate's workbook to check:

- for any mistakes or grammatical errors
- that you've included the right amount of information – not too little or too much
- that it's engaging and easy to read, eg good use of colour and illustrations; text not too big or too small
- that the IOSH logo is used correctly.

If you need more help on how to develop your presentation, take a look at our Training Guidance Book.

What is the course about?

Cancer is the silent, slow killer of people working across the world. Cancer caused by work exposures accounts for many more deaths than work accidents. Yet, cancer caused by work isn't inevitable, it's avoidable. Many people don't understand how work-related cancer can be prevented. This introductory course gives an overview of the scale and types of occupational cancer, the difficulties faced in controlling the risks, and when and where to go for further advice and help.

What does the course aim to do?

The course provides an understanding of the effects of cancer-causing agents within industry, on workers, and on society as a whole. It's designed to give an overview of identifying and dealing with workplace carcinogens in general, and why it's important to do so; and provides a set of tools and references to use in a variety of circumstances.

How long is the course?

Identifying and managing cancer-causing agents in your workplace is a one-day tutored course.

Who should attend?

This course is suitable for occupational safety and health practitioners, in any organisation or sector, who are responsible for managing risk. Others who will benefit include anyone who works in the field of health and safety, such as occupational health practitioners and managers who want to enhance their general knowledge of controlling cancer-causing agents in the workplace, or use the course as a stepping stone to further study or practice.

Successful completion of this course enables entry to in-depth workplace-specific modules on:

- Diesel engine exhaust emissions
- Solar radiation
- Respirable crystalline silica
- Shift work
- Asbestos.

What will your delegates learn?

Your course must cover the following aims and objectives:

Learning aims

- To provide an understanding of the general effects of cancer-causing agents within industry, on workers and on society
- To supply a set of tools and references for effectively identifying and controlling exposures to carcinogens in the workplace

Learning objectives

On successful completion of the course, delegates should be able to:

- apply the knowledge they've learned to familiar and unfamiliar settings so that they can identify and manage known or suspected cancer-causing agents in the workplace
- recognise their own limitations and when to seek expert help, eg from occupational hygienists, medical professionals.

Trainer criteria

To deliver the course, each trainer must be:

- an occupational hygienist with, as a minimum, Associate membership of the Faculty of Occupational Hygiene (or an equivalent professional body); *or*
- an occupational health specialist, as per part 3 of the Nursing and Midwifery Council register (occupational health); *or*
- a physician with at least a Diploma in Occupational Medicine (or equivalent); *or*
- a health and safety practitioner who is, at least, a Graduate Member of IOSH, with specialist experience in biomedical science or a degree-level qualification in biomedical science (or equivalent).

In addition, they should have:

- a health and safety qualification at national level 3, such as a British Safety Council Certificate in OSH, TUC Certificate in Occupational Health and Safety, NEBOSH National General Certificate (or an equivalent qualification); and
- at least two years' training experience, with a minimum of 50 per cent face-to-face delivery, or a national level 3 adult teaching/training qualification at level 3, such as City & Guilds, CIPD Certificate in Training Practice (or an equivalent qualification).

Familiarisation Training Day

The main trainer or nominated IOSH member will need to attend an IOSH Familiarisation Training Day before we can issue a licence to deliver this course. During this practical session we'll:

- offer advice on training best practice
- share learning ideas with you
- show you how to include interactivity in your course
- help you to understand your responsibilities as an IOSH approved trainer
- explain how we'll work with you once you're approved.

We recommend that you attend this session as soon as you can – ideally before you start to develop your course materials.

For more information or to book your session, contact our Customer Support team on +44 (0)116 257 3192.

Training provider's responsibilities

As a training provider, you're responsible for meeting our current terms and conditions of licence. You mustn't run this course until it is fully approved and licensed by IOSH.

IOSH member's responsibilities

If you'd like to offer this tailored course, your organisation must have, as a minimum, an IOSH Affiliate Member. The person you put forward doesn't have to be a trainer, although they do need to have line management responsibility in your organisation. This person will be responsible for making sure that our courses are delivered to a high standard.

The IOSH member is also responsible for overseeing the course and acting as the first line of quality control.

Introduction (45 minutes)

- Introduction and emergency/domestic arrangements
- A brief overview of IOSH (if appropriate, include reference to IOSH's campaign 'No time to lose')
- Course aims and objectives
- Assessment details

Module 1: Health at work (30 minutes)

Interactive session (30 minutes)

- Compare 'occupational health' versus 'health and wellbeing'
- Review current issues that are increasing the significance of health at work, including corporate social responsibility, sustainability, the ageing workforce, costs of healthcare
- Review the magnitude of occupational deaths due to carcinogens using statistical information from a global perspective, eg from the World Health Organization, International Agency for Research on Cancer, International Commission on Occupational Health, and using country-specific data where such data are available

Module 2: Background to carcinogens (45 minutes)

- List the classification of substances hazardous to health: irritant, corrosive, harmful, toxic and carcinogenic
- Define the term 'occupational cancer'
- List the routes of entry of substances into the body, ie ingestion, inhalation, injection, absorption. For inhalation, outline how the size of the molecule can influence the pathway into the body, that is, the smaller the size, the more damage it can do as it sinks deeper into the lung tissues and alveoli, giving immediate access to the blood stream (eg smoking, some solvents, fumes)
- There are over 200 types of cancer – list what can have an impact on whether a worker will get cancer, eg lifestyle, genetics, dose
- Describe the general principles of cancer development and long latency issues, eg some, such as skin cancers, develop relatively quickly, while others may not show for years, eg mesothelioma from asbestos typically occurs decades after exposure (the 'slow accident' concept)

Module 3: Identifying potential carcinogens (90 minutes)

Interactive session (40 minutes)

- Briefly outline the cancer risk associated with the following:
  - diesel – lung and bladder cancers
  - solar radiation – skin cancers
  - respirable crystalline silica – lung cancers
  - shift work – breast cancer
  - asbestos – lung disease and cancers
- List some carcinogens that don't have a hazard data sheet or workplace exposure limit, such as:
  - sunlight
  - radon
  - by-products of industrial processes, eg diesel fumes
  - hardwood dusts
  - novel and new chemical compounds
  - mixtures of chemicals/substances
  - shift work
- Explain the meaning of risk phrases R45 (may cause cancer), R49 (may cause cancer by inhalation)
- Explain the use and limitations of workplace exposure limits, including the purpose of long term and short term exposure limits

Module 4: Control measures (90 minutes)

Interactive session (30 minutes)

- Outline the moral and legal reasons for effective management of carcinogens in the workplace
- Describe the principles of the hierarchy of control in managing carcinogenic risk:
  - eliminate risk through substitution (avoid manufacturing off site or subcontracting, as these merely transfer the exposure risk to others)
  - enclose hazards, segregate process and workers, eg as with controlled asbestos removal
  - substitution: use substances that are non-carcinogenic, eg replace diesel-driven motors with electric-powered lift trucks
  - minimise hazard by design and operation of processes/job and task activities, eg organise work patterns that avoid working in the midday sun, when solar radiation levels are highest
  - use appropriate personal protective equipment in combination with other measures, where adequate controls cannot be achieved otherwise
  - regularly check and review implemented control measures to confirm continued effectiveness, eg regular occupational hygiene measurements
- List the information and training required for those working with carcinogens, eg cleaning, storage, emergency procedures
- Outline the types of health and medical surveillance method required for working with carcinogens, eg biological monitoring and biological effect monitoring, health records, specialist doctors

End-of-course assessment

- Fifteen multi-format questions to assess the learning outcomes – seven questions worth six marks and eight questions worth three marks
- Sixty-six marks in total, with a pass mark of 46

This should be a 'closed book' assessment.

An IOSH certificate should be awarded to delegates who pass the assessment.

After the course

Finding out what your delegates think

Finding out what your delegates think about your course is a key part of the development process. Delegate feedback helps you to identify what works well and what doesn't, so you can amend and improve your course if needed.

After each course that you deliver, we'll ask to look at your delegate feedback. If you need advice on how to develop your delegate feedback form, take a look at our Training Guidance Book.

Acknowledging your delegates' success

As part of your terms and conditions of licence you'll issue every successful delegate with an IOSH certificate that we'll produce for you. The certificate will have 'Identifying and managing cancer-causing agents in your workplace' and your organisation name printed on it. If you want to, you can have your own company logo printed onto it as well. Please call our Customer Support team on +44 (0)116 257 3192 to find out how much that would cost.

Get in touch

Please contact our Tailored Course Approval team for more information:

tailored.courses@iosh.co.uk
+44 (0)116 257 3194

Interactive session ideas

Unlucky dip

Put relevant props in a black bag. Ask delegates to grab an item at random then discuss its relevance to the topic. A 'carcinogen bag' could include: face mask, safety data sheet, pack of cigarettes, suntan lotion, Macmillan badge, NHS sign, asbestos sign, picture of an occupational health nurse/doctor, health record mock-up, iceberg symbol, COSHH guidance. Props can include pictures showing patients with symptoms, words written on cards and pictograms showing statistics.

Who is responsible for occupational safety and health management issues?

This shows the differences between 'occupational health' and 'safety' issues, and opens up discussions. Get delegates to discuss in groups who, ideally, should take the lead in the following incidents/issues at work. Should it be the 'occupational health' or 'safety' person, or someone else?

- broken wrist
- drug and alcohol testing
- workplace exposure limits
- fitness for work
- training workers
- purchasing supplies
- choosing PPE
- wellbeing
- first aid
- reporting health issues
- local exhaust ventilation
- absence
- reviewing risk assessments
- health records
- display screen equipment
- stopping smoking
- face-fit testing
- workplace assessments
- audit
- stress
- safety data sheets.

The 'straw walk'

Lung cancer causes shortness of breath. If it's appropriate and your delegates are in reasonably good health and don't suffer from asthma, ask them to take the 'straw walk'. Give each person a straw and ask them to walk at least 50 metres and go up and down a flight of stairs. When they return, ask them to pinch their noses and breathe through the straw. The exercise demonstrates how uncomfortable it is to breathe with reduced lung capacity.

Discuss the effects.

The phone call

The trainer's phone rings and they have a message to say that there's an issue with a carcinogenic exposure on their site – no one has ever paid attention to it before. A government enforcement officer has been tipped off and is on their way. An action plan is needed now. What should be done first?

Get delegates to work in groups to set up a plan.

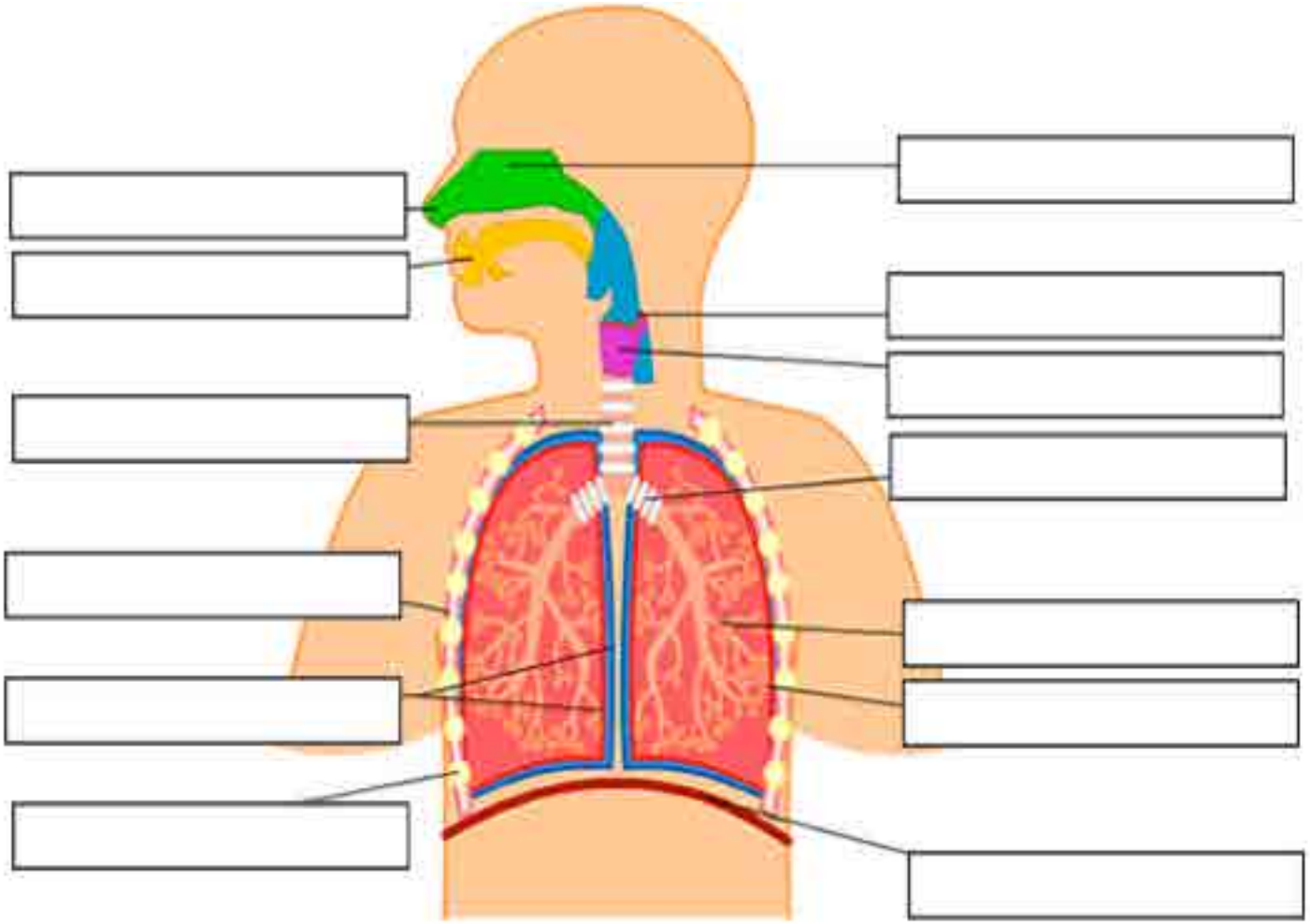
Video

Film clips can help expand your training session. Use clips such as:

- 'How cancer starts', **http://youtu.be/m5_yo6uEeEc** (1 minute)
- 'Asbestos', **https://www.youtube.com/watch?v=jifoNSXvTuQ** (2 minutes)
- 'Silica', **http://youtu.be/qBgwDvjs5Zc** (2 minutes).

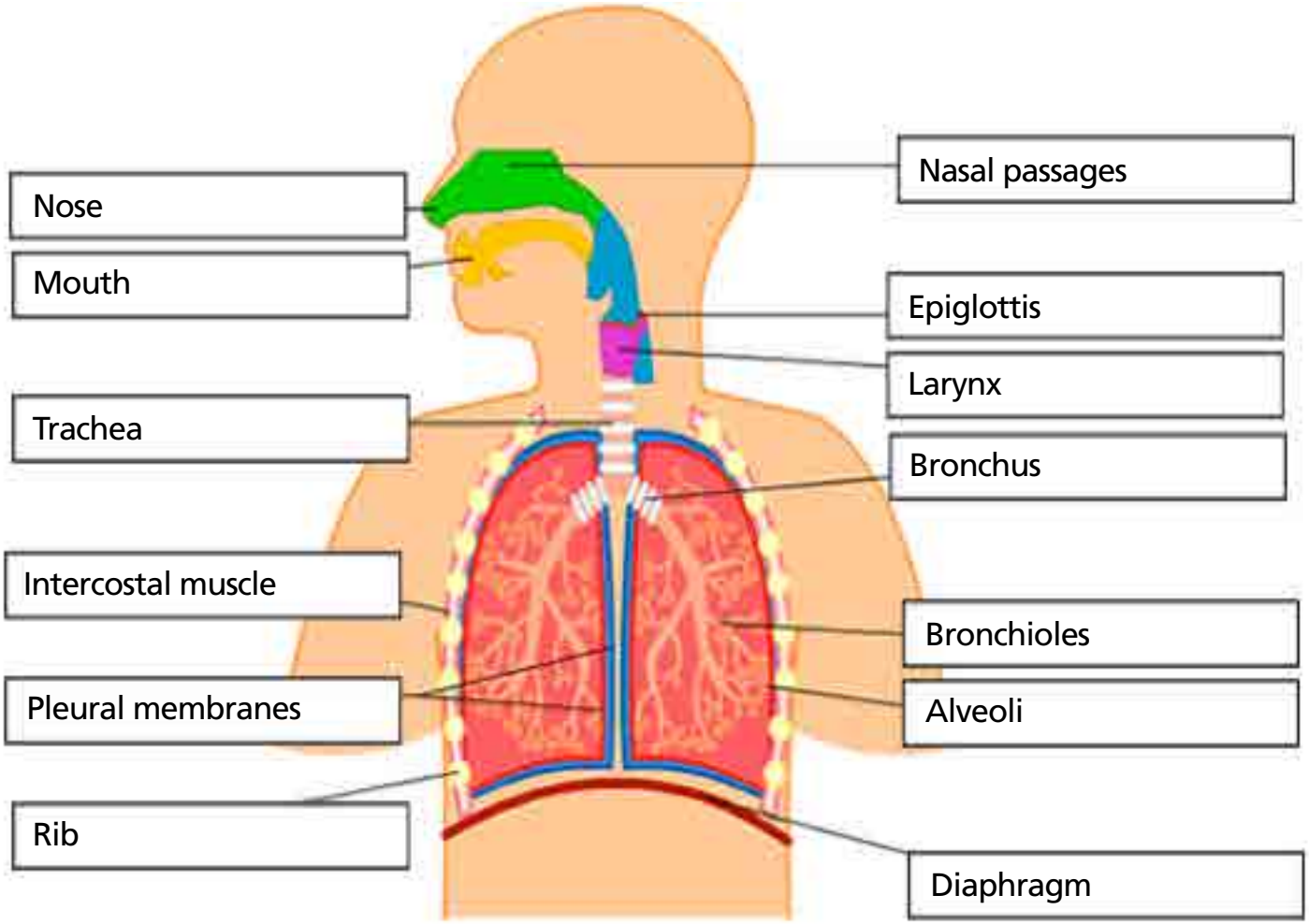
Respiration quiz

This is an example of a quiz linked to the routes of entry into the body. The quiz may be challenging for some so it may be best to work on the answers in groups. This activity could be linked to control methods for inhaled substances.



Put these labels in the right place:

Diaphragm	Larynx	Intercostal muscle	Bronchioles	Trachea
Bronchus	Nasal passages	Epiglottis	Pleural membranes	
Rib	Mouth	Nose	Alveoli	


Nose
Mouth
Trachea
Intercostal muscle
Pleural membranes
Rib
Nasal passages
Epiglottis
Larynx
Bronchus
Bronchioles
Alveoli
Diaphragm

More information, reading and reference material

IOSH
Occupational Health Toolkit – cancer
www.iosh.co.uk/Books-and-resources/Our-OH-toolkit/Occupational-cancer.aspx

'No time to lose' campaign
www.notimetolose.org

British Occupational Hygiene Society
Professional body for occupational hygienists
www.bohs.org/aboutus

Building and Wood Workers' International
Cancer in construction and timber trades
www.bwint.org/pdfs/cancerinBWI.pdf

Cancer Research UK
General information about cancer
www.cancerresearchuk.org/about-cancer/cancers-in-general/what-is-cancer

Cancer Society of New Zealand
Managing cancer in the workplace
www.cancernz.org.nz/assets/files/docs/info/Informationsheets/8342_CSNAT_Managing%20Cancer%20workplace%20for%20web.pdf

European Agency for Safety and Health at Work
Dangerous substances
https://osha.europa.eu/en/publications/factsheets/33
https://osha.europa.eu/en/publications/factsheets/34
https://osha.europa.eu/en/publications/e-facts/e-fact-75-dangerous-substances-and-successful-workplace-communication

Asbestos in construction
https://osha.europa.eu/en/publications/factsheets/51

Occupational exposure limits
https://osha.europa.eu/en/publications/reports/548OELs

Healthy Working Lives
Respiratory protective equipment
www.healthyworkinglives.com/rpe-selector?utm_source=guidancepage&utm_medium=guidancepage&utm_content=RPEtool&utm_campaign=RPE

HSE
General information about cancer
www.hse.gov.uk/cancer/about.htm

The burden of occupational cancer in Great Britain
www.hse.gov.uk/research/rrpdf/rr595main.pdf

Statistics on cancer
www.hse.gov.uk/statistics/causdis/cancer

Health surveillance
www.hse.gov.uk/health-surveillance

Hazardous substances
www.hse.gov.uk/coshh/index.htm

REACH – a new chemicals policy for the EU
www.hse.gov.uk/reach/resources/factsheet.pdf

Sun protection
www.hse.gov.uk/pubns/indg337.pdf

Personal protective equipment (PPE) at work
www.hse.gov.uk/pubns/indg174.pdf

Respiratory protective equipment at work
www.hse.gov.uk/pubns/priced/HSG53.pdf

Selecting protective gloves for work with chemicals
www.hse.gov.uk/pubns/indg330.pdf

Diesel engine exhaust emissions
www.hse.gov.uk/pubns/indg286.pdf

Chromium and you
www.hse.gov.uk/pubns/indg346.pdf

Nickel and you
www.hse.gov.uk/pubns/indg351.pdf

Control of exposure to silica dust
www.hse.gov.uk/pubns/indg463.pdf

Silica case study
http://press.hse.gov.uk/2014/firm-fined-for-silica-failings-despite-previous-warning

International Labour Organization
Toxicology
www.ilo.org/legacy/english/protection/safework/cis/products/safetytm/toxic.htm

Macmillan Cancer Support
Managing cancer in the workplace
www.macmillan.org.uk/Cancerinformation/Livingwithandaftercancer/Workandcancer/Supportformanagers/Employersguide/Employersguide.aspx

'Making it work' campaign
www.macmillan.org.uk/Documents/GetInvolved/Campaigns/Campaigns/Working_through_cancer/WorkingThroughCancer2010/MakingitWork.pdf

Trades Union Congress
Occupational cancer: a workplace guide
www.tuc.org.uk/extras/occupationalcancer.pdf

Skin cancer and outdoor workers
www.tuc.org.uk/extras/skincancer.pdf

UK legislation
www.legislation.gov.uk/browse

World Health Organization
Five keys to healthy workplaces
www.who.int/occupational_health/5_keys_EN_web.pdf?ua=1

Occupational carcinogens
http://whqlibdoc.who.int/publications/2004/9241591471.pdf

IOSH
The Grange
Highfield Drive
Wigston
Leicestershire
LE18 1NN
UK

t +44 (0)116 257 3100
www.iosh.co.uk
twitter.com/IOSH_tweets
facebook.com/IOSHUK
tinyurl.com/IOSH-linkedin

IOSH is the Chartered body for health and safety professionals. With more than 44,000 members in over 120 countries, we're the world's largest professional health and safety organisation.

We set standards, and support, develop and connect our members with resources, guidance, events and training. We're the voice of the profession, and campaign on issues that affect millions of working people.

IOSH was founded in 1945 and is a registered charity with international NGO status.