

Young people at work



a guide for employers

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First published 2000

ISBN 0 7176 1889 7

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Preface

This guide is aimed at all employers who employ or are considering taking on young people. It should also be helpful for their parents or guardians and others concerned with their health and safety in the workplace, including those who organise work experience.

Young people, especially those new to the workplace, will be facing unfamiliar risks from the job they will be doing and from the working environment. They are seen to be particularly at risk because of their possible lack of awareness of existing or potential risks, immaturity and inexperience. For example, young people may find themselves in the presence of powerful chemicals or machinery, or may be in an occupation with the potential for violent or aggressive behaviour towards them. They are also likely to lack confidence and be eager to impress or please other people around them. Those who employ young people have an opportunity to instil within them an understanding of the importance of health and safety which will serve them well throughout their working life.

The United Kingdom has implemented the health and safety protections for young employees introduced by the European Directive on the Protection of Young People at Work¹ (the Young Workers' Directive) through the Management of Health and Safety at Work Regulations 1999² (the Management Regulations). The Regulations give employers particular responsibilities towards young people they employ.

There are also some special provisions for young people in the Working Time Regulations 1998³ (the Working Time Regulations) introduced by the Department of Trade and Industry (DTI) to give all workers above the minimum school leaving age rights and protections in respect of their hours of work, night work, rest from work and paid annual holidays.

DTI has agreed the inclusion of references to, and guidance on, the Working Time Regulations 1998 and the Working Time Regulations 1999.

Section One:

Introduction

1 The guidance covers:

- the law for protecting the health and safety of young people at work;
- particular risks to young people under 18 years of age;
- what you need to do to comply with the law;
- specific restrictions on the work of young people;
- how to get advice on limits on working hours, rest from work and annual holidays;
- references to Approved Codes of Practice (ACOPs) and other guidance which you may find helpful in identifying and tackling specific risks to young people.

Definitions of young people and children by age

2 There are particular definitions of people by age in health and safety law:

- a **young person** is anyone under eighteen years of age² - young persons are referred to as **young people** throughout this guide;
- a **child** is anyone who is not over compulsory school age.⁴ He or she has not yet reached the official age at which they may leave school. This is generally referred to as the minimum school leaving age (MSLA)* throughout this guide.

3 The law concerning working time (limits on hours of work, rest from work and annual holidays)³ uses a different definition:

- a **young worker** is below eighteen years of age and above the MSLA.

*Just before or just after their 16th birthday.

Section Two:

General duties for all employers

Employers' duties to assess risks

- 4 The Management Regulations² require you to assess the health and safety risks to all your employees and to identify what you need to do to comply with your legal duties to prevent or control those risks and ensure your employees' health and safety. Under the Regulations you have particular responsibilities towards young people:
- to assess risks to all young people under 18 years of age, **before** they start work;
 - to ensure your risk assessment takes into account their psychological or physical immaturity, inexperience, and lack of awareness of existing or potential risks;
 - to introduce control measures to eliminate or minimise the risks, so far as is reasonably practicable.
- 5 You must also:
- let the parents / guardians of any children still of compulsory school age (ie below the MSLA) know the key findings of the risk assessment and the control measures you have introduced **before** the child starts work or work experience;
 - address certain specified factors in the risk assessment (see paragraph 18);
 - take account of the risk assessment in deciding whether the young people should be prohibited from certain work activities, except in specified circumstances (see paragraphs 23 and 24).
- 6 These specific requirements do not apply to young people in occasional work or short-term work involving:
- domestic service in a private household;
 - work regarded as not being harmful, damaging or dangerous to young people in a family undertaking.*

* A firm owned by, and employing members of, the same family, ie husbands, wives, fathers, mothers, grandfathers, grandmothers, stepfathers, stepmothers, sons, daughters, grandsons, granddaughters, stepsons, stepdaughters, brothers, sisters, half-brothers and half-sisters.

- 7 However, if you have a family business, like other employers, you will need to comply with the general health and safety requirement to carry out a risk assessment and other relevant requirements in specific health and safety law (see Section Four and Appendix 1). The risk assessment will help you establish if the work is harmful, damaging or dangerous to young people.

Employee and safety representatives

- 8 You must consult your employees⁵ or their safety representatives⁶ on matters relating to their health and safety including:
- changes which may substantially affect their health and safety, for example on any changes you introduce to work practices;
 - arrangements for appointing competent people to help you comply with your duties under health and safety law;
 - information on risks arising from their work, the measures in place to eliminate or reduce them, and what they should do if they have to deal with risk or danger;
 - the planning and organisation of health and safety training; and
 - the health and safety consequences of introducing new technology.
- 9 You are likely find it helpful to involve your employees and their representatives at an early stage in identifying any health and safety problems, and in developing solutions. Young people you employ, especially those new to work, may bring a fresh perspective to problem-solving. Some young people may lack confidence to voice their own concerns and so look to safety representatives to provide you with feedback on their behalf.

Reporting accidents and ill health at work

- 10 You must report some work-related accidents, including all fatal and major accidents, diseases and dangerous occurrences, to the relevant enforcing authority: either HSE or the local authority. The HSE booklet *RIDDOR explained. The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995*⁷ provides guidance on which authority will be appropriate for your business and other requirements such as what records you must keep. It includes an example of the form you should fill in to report the incident. This information enables enforcing authorities to identify where and how risks arise and to investigate serious accidents. You will then get help and advice on how to reduce injury, ill health and accidental loss.

Child employment

- 11 Children below the MSLA must not be employed in industrial undertakings such as factories, construction sites etc⁸ except when on approved work experience schemes.⁹

Children under 13 years of age are generally prohibited from any form of employment¹⁰ and local authorities have powers to make bylaws on the types of work, and hours of work, children aged between 13 years and the MSLA can do. However, children below these age limits may be licensed to take part in performances. The licence must be issued by the relevant local authority for all children below the MSLA, taking account of their fitness and arrangements for their health, kind treatment and education as appropriate to their age.

Work experience

- 12 Students and trainees, including children, on work experience are regarded in health and safety law as employees.¹¹ If you offer work experience placements to students, you must provide them with the same health, safety and welfare protection you give to your other employees. Some helpful publications in the 'Further reading' section include guidance on your responsibilities as a placement provider and what work experience organisers will expect you to do. You will also need to be aware of the types of work which young people, including pupils below the MSLA on work experience, are not allowed to do because of their age (also see Section Four and Appendix 1).

Limits on working hours, rest from work and paid annual holidays

- 13 The provisions of the Working Time Regulations 1998 (and the Working Time Regulations 1999)³ apply to all workers, with some additional provisions available for young workers (below 18 years but above the MSLA). The Department of Trade and Industry (DTI) has published guidance on the Regulations aimed at both employers and workers.^{12,13}
- 14 The Health and Safety Executive (HSE) and local authorities enforce certain provisions on behalf of the DTI, essentially related to limits on weekly working hours, restrictions on night work and health assessments. You may contact HSE's Infoline (08701 545500) or the Environmental Health Department of your local authority for advice on these requirements.
- 15 Entitlements under the Regulations such as daily/weekly rest periods, in-work breaks and paid annual leave are enforced through complaint to Employment Tribunals. You will need to contact an Advisory, Conciliation and Arbitration Service (ACAS) public enquiry point for advice on entitlements. The DTI guidance contains a full list of local ACAS telephone numbers.

Employers' liability insurance

- 16 As an employer, you need to have insurance^{14,15,16} covering your liability for injury or disease suffered by employees, including young people, during the course of their

employment in your business. This insurance is not required for employees who are closely related to you* and work in a family business not incorporated as a limited company.

- 17** Your insurer will issue you with a certificate of insurance, copies of which you need to display at all your places of business so that your employees can see that insurance cover is in place.

* ie your husband, wife, father, mother, grandfather, grandmother, stepfather, stepmother, son, daughter, grandson, granddaughter, stepson, stepdaughter, brother, sister, half-brother or half-sister.

Section Three:

Assessing health and safety risks

Carrying out the risk assessment

- 18** Before employing a young person, your health and safety risk assessment² must take these specific factors into account:
- the fitting-out and layout of the workplace and the particular site where they will work;
 - the nature of any physical, biological and chemical agents they will be exposed to, for how long and to what extent (see Section Four);
 - what types of work equipment will be used and how this will be handled;
 - how the work and processes involved are organised;
 - the need to assess and provide health and safety training; and
 - risks from the particular agents, processes and work listed in the Annex to the Young Workers' Directive.¹
- 19** The tables in Section Four contain more detailed information on the nature of specific risks to young people from the hazards listed in the Annex to the Young Workers' Directive and what to do about them. It also includes any associated restrictions on work by age in relevant health and safety law. (Appendix 1 contains some further provisions by age relating to work in agriculture, docks, mines and quarries, shipbuilding, the carriage of dangerous goods, the provision and use of work equipment, lifting operations and equipment and lift trucks.)
- 20** There is no need for you to carry out a new risk assessment each time you employ a young person, as long as your current risk assessment takes account of the characteristics of young people and of the factors outlined in paragraph 18. You may also wish to consider developing generic risk assessments for young people. These could be useful when they are likely to be doing temporary or transient work, when the risk assessments could be modified to deal with particular work situations and any unacceptable risks.
- 21** In all cases you will need to review the risk assessment if the nature of the work changes or you have reason to believe that it is no longer valid.

Outcome of the risk assessment

- 22 In carrying out the risk assessment you should identify the measures you need to take to control or eliminate health and safety risks. In many cases you will find that the risks to young people are adequately controlled if you are complying with other specific health and safety law, for example the Manual Handling Operations Regulations 1992,¹⁷ or the Control of Substances Hazardous to Health Regulations 1999 (COSHH).¹⁸ You will find advice in the Approved Codes of Practice and guidance listed in the 'References' and 'Further reading' sections, or you may wish to get professional advice on identifying and controlling the risks. If a significant risk remains in spite of your best efforts to do what is reasonably practicable to control it, you must not employ the young person to do this work.

Restrictions on the work of young people

- 23 The extent of the risks you identify in the risk assessment will also determine whether you should restrict the work of the young people you employ. Except in the special circumstances described in paragraph 24, you should not employ young people to do work which:
- is beyond their physical or psychological capacity;
 - exposes them to substances chronically harmful to human health, eg toxic or carcinogenic, or has effects likely to be passed on genetically or likely to harm the unborn child;
 - exposes them to radiation;
 - involves a risk of accidents which they are unlikely to recognise because of, eg their lack of experience or training or sufficient attention to safety;
 - involves a risk to their health from extreme heat, noise or vibration.

- 24 These restrictions will not apply where young people *over* the MSLA are doing work necessary for their training,* under proper supervision by a competent person and providing the risks are reduced to the lowest level, so far as is reasonably practicable. **Under no circumstances can children of compulsory school age do work involving these risks whether they are employed or under training such as work experience.**

Information for young people and for their parents/guardians

- 25 You must tell all your employees, including those under 18 years of age, about the risks to their health and safety identified by the assessment, and the measures put in place to

* 'Training' includes Government-funded training schemes for school leavers, modern apprenticeships, in-house training arrangements and work qualifying for assessment for N/SVQs, eg craft skills.

control them. You also need to tell them about the procedures to be followed in the event of serious and imminent danger.

- 26 Before you employ children of compulsory school age or offer them a work experience placement, you must let their parents or guardians know the key findings of the risk assessment and the control measures you have taken. You do not have to provide this information in writing, and in the case of work experience, you may ask the work experience organiser to help you in getting information to parents or guardians of any child seeking a placement.
- 27 HSE guidance *Managing health and safety on work experience : A guide for organisers*¹⁹ and guidance published by the Department for Education and Employment (DfEE) includes advice on good practice and for young people on training schemes.^{20,21,22} You may also consider giving this information to trade union safety representatives, or employee representatives for health and safety.

Consent from parents/guardians

- 28 You do not need parental consent to employ young people above the MSLA, but your local authority does require you to obtain it before you employ a child of compulsory school age. You must provide the local authority with relevant information on the child so that he or she can be issued with an employment permit. The local authority will advise you on your full responsibilities which include providing written confirmation that you have completed a risk assessment and have written approval from the parents or guardians. When you are offering a work experience placement for school pupils/students, the work experience organiser will deal with parental consent.
- 29 The Approved Code of Practice *Preventing accidents to children in agriculture*²³ also emphasises that where the work is in agriculture, you should obtain written consent from parents or guardians before taking on a child of compulsory school age.

Training and supervision

- 30 Young people need training most when they start a job - they need it to increase their capabilities and competencies to a level where they can do the work without putting themselves and others at risk. It is not enough to make training available. You should make sure it is undertaken and check that key messages have been understood. Young people will also need training and instruction on the hazards and risks present in the workplace and on the preventive and control measures put in place to protect their health and safety. This training should include a basic introduction to health and safety, for example including first aid, fire and evacuation procedures.
- 31 As well as training, you will need to bear in mind that young people are also very likely

to need more supervision than adults. You will find that effective supervision will help to monitor the effectiveness of the training young people receive. There will be clear benefits in assessing whether a young person has the necessary capacity and competence to do the job.

Section Four:

Hazards, risks and ways of avoiding them

- 32 The tables in this section contain information on specific risks to young people and the action you must take to avoid them.
- 33 However, you must **not** employ young people in the following activities where you identify significant risks to their health and safety which cannot be avoided:
- **work beyond their physical or psychological capacity** (Table 1);
 - **work in which there is a risk to their health from extreme cold or heat, or from noise or vibration** (Table 2);
 - **work involving their harmful exposure to radiation** (Table 3);
 - **work involving their exposure to agents which are toxic, carcinogenic, cause heritable damage, or harm to the unborn child or which in any other way chronically affect human health** (Tables 4, 5 and 6);
 - **work involving the risk of accidents which it may be assumed cannot be avoided by young people owing to their insufficient attention to safety or lack of experience or training** (Table 7).
- 34 The tables identify the particular risks from the agents, processes and work listed in the Annex to the Young Workers' Directive which are likely to give rise to dangers to young people.
- 35 In addition to the requirements of the regulations under 'Other relevant legislation', you will also have duties under section 2 of the Health and Safety at Work etc Act 1974.²⁴

Table 1 Work beyond psychological or physical capacity

Agents, processes and work in the Annex to the Young Workers' Directive	What is the risk?	How to avoid the risk	Other relevant legislation
Psychological capacity	<p>In the majority of jobs there is no difference in the kind of mental and social skills used by young people and adults. But you should bear in mind that there will be large individual differences in the psychological capacity of young people, based on differences in their training, experience, skills, personality and attitudes.</p> <p>However, there are some areas of work that could be beyond a young person's mental and emotional coping ability, such as dealing with violent and aggressive behaviour and decision-making in stressful situations.</p>	<p>Your risk assessment should focus on critical tasks which rely on skill, experience and an understanding of the task requirements.</p> <p>You should provide young people with training and effective supervision, particularly where they might be:</p> <ul style="list-style-type: none"> ○ using machinery with exposed dangerous parts, eg food slicing machinery; ○ potentially exposed to violent or aggressive behaviour. 	
Physical capacity	<p>Accidents, injuries and/or musculoskeletal disorders can occur in jobs that require repetitive or forceful movements, particularly when combined with awkward posture or insufficient recovery time.</p> <p>Young people may not be physically capable of driving or operating machinery designed for adults and they may not have the strength to operate the controls with ease.</p>	<p>You should:</p> <ul style="list-style-type: none"> ○ take account of the physique and general health, age and experience of the young person in your risk assessment; ○ provide training and effective supervision. 	Manual Handling Operations Regulations 1992 ¹⁷
Work the pace of which is determined by machinery and involving payment by results	<p>Young people may be more at risk as their muscle strength may not be fully developed, and they may be less skilled, eg in handling techniques or in pacing the work according to capacity. They may also be more subject to peer pressure to take on tasks that are too much for them or to work too quickly.</p>	<p>You should:</p> <ul style="list-style-type: none"> ○ take account of the young person's age and experience in your risk assessment of the young person; ○ provide training and effective supervision. 	Manual Handling Operations Regulations 1992 ¹⁷

Table 2 Work in which there is a risk to health from extreme cold or heat or from noise or vibration

Agents, processes and work in the Annex to the Young Workers' Directive	What is the risk?	How to avoid the risk	Other relevant legislation
<p>Extreme cold or heat</p>	<p>Exposure to extreme heat carries risks for employees of all ages. These include collapse due to heat exhaustion or potentially fatal heat stroke. Protective clothing may prevent the body losing heat.</p> <p>Young people control body temperature in the same way as adults. Their response to work in hot conditions will depend on physical fitness, physique and past experience of hot conditions (which will vary from person to person).</p> <p>Exposure to extreme cold also carries risks for people of all ages and they have varying abilities to tolerate cold conditions. The risks are principally hypothermia and local cold injury (frostnip or frostbite).</p>	<p>You should:</p> <ul style="list-style-type: none"> ○ ensure that any intended exposure to extreme heat or cold is carefully assessed; and ○ minimise the risks by: <ul style="list-style-type: none"> - introducing suitable work patterns; - reducing workrate; - controlling work periods; - getting a medical assessment of the young person before they start work; and - proper supervision of the work. 	<p>Personal Protective Equipment at Work Regulations 1992²⁵</p> <p>Workplace (Health, Safety and Welfare) Regulations 1992²⁶</p> <p>Construction, Health, Safety and Welfare Regulations 1996²⁷ (reasonable working temperatures in indoor workplaces and protection from adverse weather outdoors)</p> <p>Offshore Installations and Wells (Design and Construction, etc) Regulations 1996²⁸</p> <p>Provision and Use of Work Equipment Regulations 1998²⁹</p> <p>Manual Handling Operations Regulations 1992¹⁷</p>

Table 2 Continued

Agents, processes and work in the Annex to the Young Workers' Directive	What is the risk?	How to avoid the risk	Other relevant legislation
Noise	<p>There is no evidence that young people face greater risk of damaged hearing from exposure to noise than other employees.</p>	<p>If you comply with the Noise at Work Regulations you will be protecting the hearing of most young people. However, you are advised to provide suitable hearing protection where the daily personal noise exposure of young people exceeds 85 dB(A). You should ensure that a competent person supervises the wearing of ear protection to ensure that it is worn properly during exposure to loud noise (see 'References' section for details of HSE guidance on ear protection).^{31,32,33}</p>	<p>The Noise at Work Regulations 1989³⁰ apply to all workers exposed to loud noise where there is a risk to hearing.</p>
Hand-arm vibration (HAV)	<p>There is no evidence that young people face greater risk of developing hand-arm vibration syndrome from exposure to hand-arm vibration than other employees.</p> <p>Hand-arm vibration syndrome includes vibration white finger and damage to sensory nerves, muscles and joints.</p> <p>However, during adolescence there is an increased risk of non-occupational Raynaud's Disease, which can give similar symptoms to vibration white finger. Young people with non-occupational Raynaud's Disease should not be exposed to HAV.</p>	<p>HSE's guidance³⁴ recommends that you should take action to protect employees when exposure to vibration exceeds an acceleration of 2.8 metres per second squared (m/s^2). However HSE recognises that there may be some risks to health even below this level.</p> <p>To avoid risks to young people, you will need to consider a risk control programme including:</p> <ul style="list-style-type: none"> ○ identifying hazardous equipment/tasks; ○ limiting exposure to about $1 m/s^2$ normalised over 8 hours (A(8)), by reducing either the time of exposure and/or the vibration level; ○ providing competent supervision; and ○ health surveillance. 	

Table 2 Continued

Agents, processes and work in the Annex to the Young Workers' Directive	What is the risk?	How to avoid the risk	Other relevant legislation
<p>Whole-body vibration (WBV)</p>	<p>Regular exposure to shocks, low-frequency whole-body vibration, eg driving or riding in off-road vehicles on uneven surfaces, or excessive movement may be associated with back pain, and other spinal disorders. Younger people may be at greater risk of damage to the spine as the strength of their muscles is still developing and their bones do not fully mature until around the age of 25 years.</p>	<p>You will need to consider a programme to control the significant risks identified in the risk assessment including:</p> <ul style="list-style-type: none"> ○ identifying hazardous equipment/tasks; ○ limiting exposure by reducing either time and/or level; ○ providing information and training on how to minimise the risk; and ○ health surveillance. <p>HSE has published guidance on whole-body vibration³⁵</p>	

Table 3 Work involving harmful exposure to radiation

Agents, processes and work in the Annex to the Young Workers' Directive	What is the risk?	How to avoid the risk	Other relevant legislation
Ionising radiation	<p>The risk of developing cancer and hereditary defects from exposure to ionising radiation, which increases slightly for young people, is controlled by setting statutory annual dose limits. The main dose limits which relate to the whole body dose are the most important elements in relation to cancer risk. The limits for young people per calendar year are:</p> <ul style="list-style-type: none"> ○ 6 millisieverts for young trainees* under 18 years (30% of the adult limit); ○ 1 millisievert for employees below 18 years who are not trainees (the same limit as for the general public). <p>*Trainees (including students) are defined as being aged 16 years or above receiving instruction or training involving work with ionising radiation.</p>	<p>You should:</p> <ul style="list-style-type: none"> ○ design work procedures to keep exposure to ionising radiation as low as reasonably practicable, within the prescribed dose limits; and ○ ensure that young people only enter a 'controlled area' under the terms of a written system of work. <p>You cannot include young people under 18 years in the list of employees who you are required to classify as likely to receive doses higher than 6 millisieverts per calendar year from radiation exposure.</p>	<p>Ionising Radiations Regulations 1999³⁶</p>
Non-ionising electromagnetic radiation	<p>Optical radiation There is no evidence that young people face greater risk of skin and eye damage than other employees.</p> <p>Electromagnetic fields and waves Exposure within current recommendations is not known to cause ill health to employees of any age. Extreme over-exposure to radio-frequency radiation could cause harm by raising body temperature.</p>	<p>HSE guidance advises people working outdoors to reduce their exposure to the sun in the summer months as much as is reasonably practicable.³⁷</p> <p>You should ensure that exposure to electric and magnetic fields does not exceed the restrictions on human exposure published by the National Radiological Protection Board.³⁸</p>	

Table 4 Work involving harmful physical agents

Agents, processes and work in the Annex to the Young Workers' Directive	What is the risk?	How to avoid the risk	Other relevant legislation
<p>Work in high-pressure atmospheres</p>	<p><i>Compressed air</i> People who work in compressed air are at risk of developing decompression illness and there is a long-term possibility of developing bone necrosis. This is due to free bubbles of gas in the circulation caused by too rapid a return to atmospheric pressure during decompression. Young people's bones are not fully developed and may be at greater risk of long-term harm.</p> <p>It is not clear whether pregnant women are more at risk but potentially the foetus could be seriously harmed by such gas bubbles.</p> <p>For those who have recently given birth there is a small increase in the risk of developing decompression illness.</p>	<p>You must ensure strict compliance with HSE-approved decompression procedures, ie they must follow an HSE-approved decompression regime.</p> <p>HSE supports current industry practice not to allow people below the age of 18 to work in compressed air.</p>	<p>Work in Compressed Air Regulations 1996³⁹</p>
	<p><i>Diving</i> The risks are from pressure and decompression.</p> <p>Pregnant workers are advised not to dive at all during pregnancy due to the possible effects of exposure to a hyperbaric environment on the foetus.</p>	<p>Divers must have an approved qualification, be fit and must have a valid certificate of medical fitness to dive.</p> <p>There is no minimum age limit for divers. However, it is unusual for anyone below school-leaving age to undergo diver training and employers offshore will not employ anyone under 18 years for diving work.</p>	<p>Diving at Work Regulations 1997⁴⁰</p>

Table 5 Work involving biological agents

Agents, processes and work in the Annex to the Young Workers' Directive	What is the risk?	How to avoid the risk	Other relevant legislation
<p>Biological agents</p>	<p>In spite of their physical and physiological immaturity, young people are no more likely to contract infections from biological agents (micro-organisms) than adults. Like any other person, they may be at greater risk if they suffer from any other disease or from the effects of medication or pregnancy.</p> <p>However guidance produced by the Advisory Committee on Dangerous Pathogens advises that people aged 18 years and under should not handle animals infected with Hazard Group 4 biological agents. (See <i>Working safely with research animals: Management of infection risks</i>.⁴¹)</p>	<p>You must take precautions for all employees regardless of their age or state of health against the risk of:</p> <ul style="list-style-type: none"> ○ infection at work; and ○ acquiring an allergy to certain micro-organisms. <p>Following a risk assessment in line with the requirements of the COSHH Regulations, you will need to identify measures to control the risks. Control measures are often as simple as maintaining high standards of hygiene such as hand-washing and use of gloves.</p> <p>You should offer employees vaccination as a supplement to procedural or physical controls.</p>	<p>Control of Substances Hazardous to Health (COSHH) Regulations 1999¹⁸</p> <p>Genetically Modified Organisms (Contained Use) Regulations 1992 as amended by the Genetically Modified Organisms (Contained Use) (Amendment) Regulations 1996⁴²</p> <p>Personal Protective Equipment at Work Regulations 1992²⁵</p>

Table 6 Work involving chemical agents

Agents, processes and work in the Annex to the Young Workers' Directive	What is the risk?	How to avoid the risk	Other relevant legislation
<p>Very toxic, toxic, harmful, corrosive and irritant substances</p>	<p>Young people are not physiologically at any greater risk from exposure to such substances than anyone else. You can only determine the actual risk through a risk assessment of the particular substance at your workplace. However, young people may not appreciate the dangers to their health or they may not understand or follow instructions properly because of their immaturity.</p>	<p>These substances fall within the scope of COSHH. You should assess the health risks to young people arising from work with any of the substances and where appropriate prevent or control the risks.</p> <p>You should pay particular attention to your responsibilities under COSHH in providing:</p> <ul style="list-style-type: none"> ○ information, instruction and training; and ○ adequate supervision within a safe system of work. 	<p>Control of Substances Hazardous to Health (COSHH) Regulations 1999¹⁸</p> <p>Personal Protective Equipment at Work Regulations 1992²⁵</p>
	<p>Some substances (<i>carcinogens</i>) may cause cancer. They need special consideration because of that property – they have no special effect on young people.</p>	<p>Special precautions for these kinds of substance are set out in the COSHH Carcinogens Approved Code of Practice.</p> <p>You can identify many of these substances from the label or safety data sheet for the substance which will say 'May cause cancer'. Other carcinogenic substances and processes are listed in Schedule 1 of the COSHH Regulations (see the general COSHH Approved Code of Practice¹⁸).</p>	<p>Control of Substances Hazardous to Health (COSHH) Regulations 1999¹⁸</p>
	<p>Some substances can cause <i>allergic reactions</i> in people. This may give them dermatitis or asthma. These substances do not affect young people any differently from adults.</p>	<p>HSE guidance on preventing asthma at work,⁴³ and on dermatitis⁴⁴ gives practical advice on preventing risk to all workers.</p>	

Table 6 Continued

Agents, processes and work in the Annex to the Young Workers' Directive	What is the risk?	How to avoid the risk	Other relevant legislation
	<p>Some substances may impair a woman's ability to have children or may damage the unborn child. These substances do not affect young people any differently from adults.</p>	<p>In carrying out the risk assessments you should have regard for women who are pregnant, or who have recently given birth. Practical advice on protecting the health and safety of new or expectant mothers is given in HSE guidance.⁴⁵</p>	<p>Management of Health and Safety at Work Regulations 1999²</p>
<p>Lead and lead compounds</p>	<p>Young people aged 16 years and above are not at any greater risk from exposure to lead and its compounds than anyone else. You can only identify the specific risk through a risk assessment of the particular circumstances under which there is exposure to lead or its compounds in your workplace. You should bear in mind that young people may not appreciate the dangers to their health and that they may not understand or follow instructions properly because of their immaturity.</p> <p>Lead and its inorganic compounds are known to produce various biological effects in humans, depending on the exposure level. These range from:</p> <ul style="list-style-type: none"> ○ minor biochemical changes in the blood, which are unlikely to have adverse health consequences; to ○ severe irreversible or life-threatening disruption of body processes, in particular the nervous system, the blood-forming system and the kidneys. <p>There are also concerns about the effects of lead on the quality of semen and on the unborn child.</p>	<p>You must pay special attention to the requirements of the Control of Lead at Work Regulations 1998 for providing young people with:</p> <ul style="list-style-type: none"> ○ information, instruction and training; ○ proper supervision within a safe system of work. <p>You must not employ young people for work in certain lead processes:</p> <p><i>lead smelting and refining processes</i></p> <ul style="list-style-type: none"> ○ work involving the handling, treatment, sintering, smelting or refining of ores or materials containing not less than 5% lead; and <p><i>lead-acid battery manufacturing processes</i></p> <ul style="list-style-type: none"> ○ the manipulation of lead oxides; ○ mixing or pasting in connection with the manufacture or repair of lead-acid batteries; ○ the melting or casting of lead; 	<p>Control of Lead at Work (CLAW) Regulations 1998⁴⁶</p>

Table 6 Continued

Agents, processes and work in the Annex to the Young Workers' Directive	What is the risk?	How to avoid the risk	Other relevant legislation
	<p>The toxic effects of lead alkyls give rise to symptoms including agitation, insomnia, dizziness, tremors and delirium, which can progress to mania, coma and death. These symptoms are accompanied by nausea, vomiting and abdominal pain.</p>	<ul style="list-style-type: none"> ○ the trimming, abrading or cutting of pasted plates in connection with the manufacture or repair of lead-acid batteries. <p>You cannot employ young people to clean any place where any of the above processes are carried out.</p> <p>The Regulations require you to ensure that the exposure of young people to lead and its compounds is adequately controlled. For example where the exposure to lead is significant, you must ensure that employees under the age of 18 years are under medical surveillance and that their blood is monitored every 3 months for levels of lead.</p> <p>If the level reaches 50 µg / dl for young men or 30 µg / dl for young women (the suspension level), you must remove them from any work which exposes them to lead until their blood level drops below 50 µg / dl / 30 µg/dl respectively.</p> <p>(The lower suspension level for female employees is aimed at protecting any foetus which might be developing. Pregnant women are not always aware of their pregnancy in the early stages.)</p>	

Table 6 Continued

Agents, processes and work in the Annex to the Young Workers' Directive	What is the risk?	How to avoid the risk	Other relevant legislation
<p>Asbestos</p>	<p>Young people are not physiologically at any greater risk from exposure to asbestos than anyone else, but asbestos is a very hazardous material. Exposure to asbestos fibres causes three serious diseases:</p> <ul style="list-style-type: none"> ○ mesothelioma (a cancer of the lung lining); ○ lung cancer (indistinguishable from cancers caused by other agents); and ○ asbestosis (scarring of the lung tissue). <p>These diseases can take many years to appear after the period of exposure. There are no cures for asbestos-related diseases.</p> <p>You can only identify the specific risk through a risk assessment of the particular circumstances under which there is exposure to asbestos in your workplace. You should bear in mind that young people may not appreciate the dangers to their health or they may not understand or follow instructions properly because of their immaturity.</p>	<p>You must comply with the Control of Asbestos at Work Regulations 1987. In particular, you should ensure that exposure to asbestos is avoided wherever possible. If exposure to asbestos cannot be avoided, for example by using other products or processes, you should ensure that it is at as low a level as is reasonably practicable.</p> <p>You must pay special attention to the requirements of the Regulations for providing young people with:</p> <ul style="list-style-type: none"> ○ information, instruction and training; and ○ adequate supervision within a safe system of work. <p>The marketing and use of all asbestos materials and products is forbidden except for use in a very few critical situations.</p>	<p>Control of Asbestos at Work Regulations 1987⁴⁷</p> <p>Asbestos (Prohibitions) Regulations 1992 and Asbestos (Prohibitions) (Amendment) Regulations 1999⁴⁸</p>

This table provides enough information to enable you to identify those chemical agents covered by the Management Regulations²

Table 7 Work involving the risk of accidents which it may be assumed cannot be avoided by young people owing to their insufficient attention to safety or lack of experience or training

Agents, processes and work in the Annex to the Young Workers' Directive	What is the risk?	How to avoid the risk	Other relevant legislation
Flammable liquids	Accidental spills can cause fires or explosions. Flammable liquids should be used only for their intended purposes - using them for other purposes may lead to fires or explosions.	<p>If your employees are working with or near flammable liquids, you will need to explain:</p> <ul style="list-style-type: none"> <input type="checkbox"/> the basics of flammability; <input type="checkbox"/> what to do if liquid is spilt; <input type="checkbox"/> the dangers of using liquids, such as petrol, for cleaning machinery or starting bonfires. 	
Flammable gases	Leaking gas from pipes, appliances or cylinders can cause fires or explosions.	<p>If your employees are working with or near pipes, cylinders or appliances containing flammable gases, you will need to explain:</p> <ul style="list-style-type: none"> <input type="checkbox"/> the basics of flammability; <input type="checkbox"/> how to detect leaking gas; <input type="checkbox"/> what to do in the event of a gas leak. 	
Gas cylinders	Leaking gas from cylinders may cause fires or explosions.	<p>If gas cylinders are used in your workplace, you will need to explain:</p> <ul style="list-style-type: none"> <input type="checkbox"/> the basics of flammability; <input type="checkbox"/> how to detect leaking gas; and <input type="checkbox"/> what to do in the event of a gas leak 	
	Physical damage to cylinders may cause leaks which may lead to fires or explosions. Heavy cylinders may cause physical injury if not properly handled.	<p>You should ensure that gas cylinders are properly handled, to avoid:</p> <ul style="list-style-type: none"> <input type="checkbox"/> the danger of fire or explosion; and <input type="checkbox"/> the risk of physical injury to the worker, eg crushed toes. 	

Table 7 Continued

Agents, processes and work in the Annex to the Young Workers' Directive	What is the risk?	How to avoid the risk	Other relevant legislation
	<p>Application of heat to gas cylinders may cause them to burst, possibly resulting in a 'shrapnel' type explosion. Alternatively the contents may be vented through a pressure-release valve resulting in fire or explosion.</p>	<p>You should ensure that gas cylinders are safely stored and used, away from direct sources of heat.</p>	
<p>Work with vats, tanks, reservoirs or carboys containing chemical agents</p>	<p>This work involves handling or working near to substantial quantities of substances hazardous to health. There is a risk of fire or explosion where there is an explosive atmosphere, or where spills or leaks of flammable substances are readily foreseeable. There is also a risk of ignition of a flammable liquid which has splashed or soaked into clothing.</p> <p>There is also a risk of falls from heights into dangerous substances.</p>	<p>Your risk assessment should consider issues such as:</p> <ul style="list-style-type: none"> <input type="checkbox"/> how to ensure young people will follow emergency procedures properly if containment is lost; <input type="checkbox"/> how to prevent young people from falling into tanks of hazardous chemicals; and <input type="checkbox"/> how to ensure that young people behave responsibly when working near quantities of chemicals that have the potential to cause serious harm, eg making young workers aware of the dangers of introducing ignition sources in these situations. 	<p>Control of Substances Hazardous to Health (COSHH) Regulations 1999¹⁸</p> <p>Workplace (Health, Safety and Welfare) Regulations 1992²⁶</p>
<p>Work involving a risk of structural collapse</p>	<p>There are a number of activities which may give rise to risk of structural collapse, including new construction, refurbishment and alterations when structures may be either deliberately or accidentally weakened. Demolition or dismantling is also a high-risk activity.</p>	<p>You should plan all such work and ensure it is carried out under the control of a competent person. Young people should only do this work if properly trained or if they are supervised by a trained person.</p>	<p>Construction (Design and Management) Regulations 1994⁴⁹</p> <p>Construction (Health, Safety and Welfare) Regulations 1996²⁷</p>

Table 7 Continued

Agents, processes and work in the Annex to the Young Workers' Directive	What is the risk?	How to avoid the risk	Other relevant legislation
Work involving high-voltage electrical hazards	The risk is one of electric shock, burns or electrocution. There is no evidence that young workers face greater physical risks from electricity than other workers.	As with adults, you must ensure that young people do not carry out any work involving electricity unless: <ul style="list-style-type: none"> <input type="checkbox"/> they have the necessary technical knowledge and/or experience to prevent danger or injury; or <input type="checkbox"/> you have ensured that they are under an appropriate level of supervision for the nature of the work. 	Electricity at Work Regulations 1989 ⁵⁰
Manufacture and handling of devices, fireworks or other objects containing explosives	Young people may pay inadequate attention to safety precautions because of lack of experience, lack of awareness or mental immaturity, increasing the risk of fire or unintended explosion.	You must not allow anyone under 16 years of age to enter any room where explosives are made, or where explosives, or their ingredients, are stored. (There are certain exceptions where a young person under 16 years is employed in a process which has been declared to be non-dangerous by an Order of the Secretary of State.) You cannot employ young people under 18 years in explosives buildings except in the presence and under the supervision of someone aged 21 years or over.	Explosives Act 1875 (as amended by the Explosives Act 1923) ⁵¹ and subsidiary legislation (currently under review - planned completion by mid-2001)

Table 7 Continued

Agents, processes and work in the Annex to the Young Workers' Directive	What is the risk?	How to avoid the risk	Other relevant legislation
<p>Work with fierce or poisonous animals</p>	<p>Some animals kept in zoos are fierce or poisonous. Farm animals (including semi-domesticated animals such as deer, as well as domesticated animals such as horses, bulls, cows, sheep and pigs) may occasionally show aggression, eg bulls or animals with young, both in open fields and in enclosed pens.</p> <p>Young people may be more at risk than older workers because of their inexperience and lack of appreciation of the risks.</p> <p>There may also be additional risks from zoonoses (diseases carried by animals which can also affect humans). These include diseases such as orf, which causes skin lesions, and <i>E coli</i> O157, which may cause serious diarrhoea or death.</p>	<p>You must ensure that all employees working with zoo animals are supervised. Because of their lack of experience, young people may be particularly at risk and zoo operators should ensure they are adequately trained and strictly supervised.</p> <p>Safety management systems should also be put in place to segregate employees from potentially fierce animals. If you know that a farm animal has the potential to be aggressive, consider whether young people should be allowed to work with it. Otherwise, reduce risks by:</p> <ul style="list-style-type: none"> <input type="checkbox"/> preventing access to potentially aggressive farm animals; <input type="checkbox"/> providing proper training for young workers before they have to work among male animals or those with young; <input type="checkbox"/> making sure adequate handling facilities are available and used; and <input type="checkbox"/> supervising the young person until you are satisfied that he/she is competent. <p>Following the principles of good occupational hygiene should protect against the risk of contracting a zoonosis.</p>	<p>The Approved Code of Practice: <i>Preventing accidents to children in agriculture</i>²³ includes requirements relating to contact with animals</p>
<p>Animal slaughtering on an industrial scale</p>	<p>There are risks from mechanical equipment and the operation of stunning equipment, animal handling and zoonoses.</p>	<p>You should ensure that young employees are carefully instructed and supervised to follow recognised industry safe systems.</p>	<p>Manual Handling Operations Regulations 1992¹⁷</p>

Appendix 1:

Further health and safety provisions for young people

Agriculture

- 1 The *Prevention of Accidents to Children in Agriculture Regulations 1998* prohibit children under 13 years from riding on vehicles and machines including tractors, trailers etc. The Approved Code of Practice *Preventing accidents to children in agriculture*²³ gives practical advice on complying with the Regulations and the types of dangerous work which young people of compulsory school age should not do or be involved in.

Carriage of dangerous explosives and goods

- 2 The *Carriage of Explosives by Road Regulations 1996*⁵² prohibit anyone under 18 years of age from:
- using or being employed as a driver or attendant of any vehicle for the carriage of explosives;
 - being responsible for the security of the explosives concerned; or
 - entering the vehicle except in the presence of and under the supervision of someone at least 18 years old.

These prohibitions do not apply to the carriage of specified low-risk explosive articles or to the carriage of limited quantities of certain other low-risk explosives articles.

- 3 Under the *Carriage of Dangerous Goods by Road Regulations 1996 (as amended)*,⁵³ the operator and driver of any vehicle carrying dangerous goods must ensure that when the vehicle is parked it is supervised by a competent person over the age of 18 years. The Regulations also prohibit young people aged 18 years or below from being employed to supervise the unloading of petrol from a road tanker at a petrol filling station.

Provision and use of work equipment

- 4 The *Provision and Use of Work Equipment Regulations 1998 (PUWER)*²⁹ apply to all work equipment which is used by employees. The primary objective of the Regulations is to

ensure that no work equipment gives rise to risks to health and safety, regardless of the work equipment's age, condition or origin. All employees must be competent to use work equipment with due regard to health and safety.

- 5 The Approved Code of Practice and Guidance on PUWER *Safe use of work equipment. Provision and Use of Work Equipment Regulations 1998*²⁹ emphasises the importance of training and properly supervising young people because of their relative immaturity and unfamiliarity with the working environment. There is also strengthened guidance relating to young people in associated Approved Codes of Practice, for example dealing with power presses⁵⁴ and woodworking.⁵⁵

Power presses

- 6 The Approved Code of Practice *Safe use of power presses: Provision and Use of Work Equipment Regulations 1998 as applied to power presses*⁵⁴ states that young people (under 18 years) should not be allowed to use a power press unless they have the necessary maturity and competence. This includes having successfully completed appropriate training. However, they may operate a power press during training as long as they are adequately supervised. They should also be supervised after training if considered insufficiently mature.

Woodworking machines

- 7 The Approved Code of Practice and Guidance *Safe use of woodworking machinery: Provision and Use of Work Equipment Regulations 1998 as applied to woodworking*⁵⁵ states that young people (under 18 years) should not be allowed to use high-risk woodworking machinery unless they have the necessary maturity and competence which includes having completed appropriate training. High-risk woodworking machinery includes any woodworking machine which is hand-fed as well as the following machines, however they are fed:

- any sawing machine fitted with a circular blade or saw band;
- a planing machine when used for surfacing; and
- a vertical spindle moulding machine.

- 8 However, young people may operate high-risk woodworking machinery during training providing they are adequately supervised. They should also be supervised after training if considered insufficiently mature.

Mechanical lifting operations

- 9 The *Lifting Operations and Lifting Equipment Regulations 1998*⁵⁶ apply to lifting equipment in all premises and work situations subject to the Health and Safety at Work etc Act

1974.²⁴ The Approved Code of Practice and Guidance *Safe use of lifting equipment. The Lifting Operations and Lifting Equipment Regulations 1998*⁵⁶ states that young people under 18 years should not be allowed to use high-risk lifting machinery unless they have the necessary maturity and competence which includes having successfully completed appropriate training. Examples of high-risk lifting equipment which normally should not be operated by young people include:

- cranes;
- construction site hoists; and
- fork-lift trucks.

10 There may be substantial risks associated with the use of lifting accessories, for example during ‘slinging’ and employers need to assess whether such work is appropriate for young people. However, young people may use high-risk lifting machinery during training as long as they are adequately supervised. They should also be supervised after training if considered not sufficiently mature.

11 The *Docks Regulations 1988*⁵⁷ prohibit any young person under 18 years from operating a powered lifting appliance in the course of docks operations, unless undergoing a suitable course of training under the proper supervision of a competent person. Members of Her Majesty’s Forces are exempt from this prohibition.

Lift trucks

12 The Approved Code of Practice and Guidance *Rider-operated lift trucks: Operator training*⁵⁸ states that operators of lift trucks on docks premises must be aged at least 18 years. Young people under 18 years should not be allowed to operate lift trucks on other premises without adequate supervision unless they have the necessary competence and maturity, as well as having successfully completed appropriate training. **Children under the MSLA should never operate lift trucks.**

Mines and quarries

13 Age limits in the current law on mines are being considered in the continuing Mines Legislative Review programme. Although some statutory age limits have been revoked, the following limits are still to be considered:

- The *Mines and Quarries Act 1954*⁵⁹ specifies age limits (for underground mines) of:
 - 22 years and above for those in charge of winding and rope haulage equipment, carrying passengers;
 - 18 years and above for those in charge of rope haulage when passengers are not carried; and
 - 18 years and above for those in charge of conveyors at work faces.

- The *Coal and Other Mines (Sidings) Order 1956*⁶⁰ prohibits anyone under 18 years from being employed as a locomotive driver or anyone under 16 years as a shunter.
- The *Coal and Other Mines (Locomotives) Order 1956*⁶¹ prohibits anyone in a coal mine under 21 years from operating a locomotive transporting passengers.
- The *Miscellaneous (Mines Explosives) Regulations 1959*⁶² prohibit anyone under 21 years from being employed as a shotfirer.
- The *Coal and Other Safety Lamp Mines (Explosives) Regulations 1993*⁶³ prohibit anyone from being employed as a shotfirer unless they are at least 21 years and hold HSE-approved qualifications, or are otherwise suitably qualified.

Shipbuilding

- 14 Under the *Shipbuilding and Ship-repairing Regulations 1960*,⁶⁴ a young person under 16 years must be employed in a shipyard for at least six months before he/she can do work where he is liable to fall more than 6 feet 6 inches, or into water in which there is a risk of drowning. As shipbuilding is classed as an industrial undertaking (see paragraph 11, Section 2), any work by young people below 16 years in a shipyard could only be undertaken as part of a properly approved programme of work experience.

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While every effort has been made to ensure the accuracy of the references listed in this publication, their future availability cannot be guaranteed.

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Carriage of dangerous goods

The carriage of dangerous goods explained: Part 1. Guidance for consignors of dangerous goods by road and rail (classification, packaging, labelling and provision of information) (plus 1999 Supplement) HSE Books 1996 HSG160 ISBN 0 7176 1255 4

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Printed and published by the Health and Safety Executive

C150 12/00